JERZY HABER INSTITUTE OF CATALYSIS
AND SURFACE CHEMISTRY
POLISH ACADEMY OF SCIENCES

KNOW Leading National Research Centers

RESEARCH REPORT

General information
for years 2014-2016

Contents

Introduction

Research

The Jerzy Haber Institute of Catalysis and Surface Chemistry of the Polish Academy of Sciences is the only scientific institution in Poland and one of very few in the world devoted entirely to research in catalysis and the chemistry of interfaces. The Institute pursues interdisciplinary studies of phenomena occurring at gas-solid, gas-liquid and liquid-solid interfaces, combining significant aspects of chemistry, physics, chemical technology, material engineering, and more recently of biology and medicine. The fundamental theoretical and experimental studies carried out in the Institute are combined with applied research so that the results obtained can be used directly to improve materials, methods or technological processes.

The Institute employs over 120 people, of whom almost 90 are research staff. Approximately 38 PhD students are also involved in research.

The research activity of the Institute focuses on four fundamental areas:

1. Catalytic materials and processes for sustainable development
2. Physics and chemistry of surfaces and nanostructures – experiment and theory
3. Nanostructures of soft matter
4. Physics and chemistry in cultural heritage protection

In the area of catalysis, much effort is put into developing new, 'intelligent' materials with well-defined structure and properties, tuneable to the requirements of particular catalytic reactions. 'Green chemistry' reactions, optimised to improve energy-efficiency and to eliminate or limit side-products are just some of the major points of interest. Enzymes and their synthetic mimics are our dynamically developing research field. With the use of theoretical and experimental methods, we try to elucidate at the molecular level catalytic mechanisms of the studied systems and develop useful biocatalysts.

In the field of surface chemistry of dispersed systems, investigations are focused on the description of adsorption phenomena and understanding the mechanism of formation and stability of foams, nano and colloid particles and their interactions, processes of microencapsulation and the biocompatibility of materials. Experimental studies are carried out in close synergy with theoretical investigations. Quantum chemical methods are used as tools to identify and characterize various electronic and structural factors influencing the selectivity and direction of chemical processes in order to explain molecular mechanism of heterogeneous and enzymatic catalytic reactions. Further, solid state physics modelling methods, as well as molecular mechanics and Monte-Carlo simulation techniques are applied.

The investigation outcomes are turned into applications encompassing catalytic materials and processes for pollutant removal to protect the environment, the manufacturing of innovative biomedical materials and the improvement of materials and methods for cultural heritage conservation. By way of example, fundamental research elucidating mechanisms of adsorption of proteins on interfaces has a considerable application potential in the processes of protein separation and purification, effective immunological tests and enzymatic reactions in bioreactors.

The institute is equipped with state-of-the-art research facilities, in many cases unique on the national scale. The equipment of joint inter-institute laboratories is also used.

In the years 2014-2016, our organizational structure consisted of 13 research groups and 2 laboratories:

Research groups

1. Adsorption
2. Cultural Heritage Research
3. Theoretical and Experimental Biocatalysis
4. Quantum Chemistry – Research on Catalysts and Catalytic Reactions
5. Functionalized Molecular Sieves
6. Acid-Base Catalysis (in 2016 included in the Quantum Chemistrty group)
7. Catalysis in the Protection of Natural Environment
8. Colloids
9. Layered Minerals, Mesoporous Oxides, Nanostructures
10. Nanostructures of Soft Matter
11. Surface Nanostructures
12. Catalytic Processes for Clean Energy
13. Dispersed Systems

Laboratories:

1. XRD and Thermoanalysis Laboratory
2. Laboratory of Nanostructures and Surfaces

Education

Doctoral programmes at the third-cycle level are established within three frameworks:

The International Postgraduate School, organised in collaboration with the Faculty of Chemistry, Rzeszów University of Technology.

The Interdisciplinary Doctoral Programme 'Advanced Materials for Modern Technologies and Future Energetics' coordinated by the Faculty of Physics and Applied Computer Science, AGH University of Science and Technology and the Institute of Nuclear Physics, Polish Academy of Sciences.

The Interdisciplinary Doctoral Programme (MOL-MED), 'Molecular Sciences for Medicine', which runs in cooperation with the Institute of Pharmacology of the Polish Academy of Sciences, the Faculty of Chemistry of the Jagiellonian University and the Faculty of Medicine, Collegium Medicum of the Jagiellonian University.

Number of accomplished PhD studies and PhD degrees granted in the period 2014-2016 are provided in the Statistics section below.

In the framework of cooperation with high schools, over the years 2014-2016 19 students have developed at the Institute their Master and Bachelor theses in the field of chemistry and environmental protection.

National and international cooperation

The Institute has a long-standing tradition of animating and coordinating research in the field of catalysis and surface science in Poland. For almost fifty years, the Institute has organised the annual National Catalytic Colloquium, a key event for the research community in the field.

The Institute intensifies the use of its research instructure by organizing joint laboratories with a number of research centres: the Centre for Surface and Nanostructure Research, the Interinstitute Laboratory of Enzymatic Catalysis and Biotechnology, the Laboratory of Electrochemistry and Surface Chemistry, Interdisciplinary Centre of Physical, Chemical and Medical Sciences, the National Laboratory for Surface Studies and SPINLAB – the National Centre of Magnetic Nanostructures for Applications in Spin Electronics.

We support the development of interdisciplinary research participating in several consortia and clusters as the Polish Technology Platform of Sustainable Chemistry, the National Consortium 'Polish Synchrotron', the Cluster Life Science, the Consortium 'Catalysis in the environmental protection' and the Consortium 'Nanotech', the Consortium for participation of Poland in European Research Infrastructure for Heritage Science.

In July 2012, the Institute was granted prestigious status of the National Leading Research Centre KNOW in physical sciences for 2012-2017 in the framework of the Marian Smoluchowski Krakow Research Consortium 'Matter – energy – future'. The Consortium is formed by Faculty of Chemistry, Jagiellonian University; Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University; Faculty of Physics and Applied Computer Science, AGH University of Science and Technology; the Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences and the Henryk Niewodniczański Institute of Nuclear Physics, Polish Academy of Sciences.

The Institute is involved in extensive international cooperation. These activities include numerous bilateral international collaboration schemes, research projects of the successive Framework Programmes of the European Commission, as well as of the Operational Programmes: Innovative Economy and Human Capital, co-financed by the European Commission.

The Institute actively participates in the actions of the COST Initiative (in total 4). Between 2012 and 2016, we have coordinated COST Action CM1101 'Colloidal Aspects of Nanoscience for Innovative Processes and Materials' with the participation of 70 research organisations from 36 countries.

Popularising research

It is our firm belief that making scientific research easily understandable to society is of immense importance for gaining public support for investment in the field of science, both by state and private institutions. Therefore, every year, the Institute organizes Open-Door Days, during which visitors may listen to popular science lectures, participate in spectacular laboratory presentations and attend poster sessions depicting the Institute's research. The Open-Door Days are aimed especially at young people from junior and senior high schools. They are very popular among local schools – every year the Institute receives approximately 1,000 visitors.

The Institute participates in the annual Krakow Science Festival in the city's Main Market Square.

Statistics 2014-2016

	2014	2015	2016	Σ
Publications				
monographs	1	1	2	2
chapters in monographs	5	7	4	16
articles in journals evaluated in Thomson Reuters Journal Citation Reports	105	94	110	309
articles in other journals and books	18	23	21	62
Patents	1	1	4	6
Patent applications	2	9	2	13
Domestic research projects Σ	44	41	35	56
granted in a given year	5	5	6	
International research projects Σ	13	12	7	16
granted in a given year	1		1	
Participation in conferences				
invited lectures	22	20	21	63
orals	82	121	73	276
posters	229	243	208	680
Participated conferences (oral presentations)	62	69	52	183
Conferences &	5	8	5	18
Popular scientific events organized by the Institute	2	2	2	6
Scientific titles and degrees granted				
professor	1	1		2
DSc (habilitation) by ICSC	1	1	2	4
in other institutions		1	1	2
PhD (doctorate) by ICSC	7	18	6	31
in other institutions	2	1		3
PhD students	48	35	31	

RESEARCH GROUPS AND LABORATORIES

Heads of the research groups in italics
Staff members and PhD students as on December 31st, 2016

Adsorption
Professor Tomasz Pańczyk DSc
Associate Professor Wojciech Płaziński DSc, Agnieszka Brzyska PhD, Paweł Wolski MSc, Łukasz Kończak MSc, Barbara Jachimska DSc
PhD students: Sylwia Świątek, Karolina Tokarczyk, Karolina Gawęda, Karina Pańczyk

Cultural Heritage Research
Professor Roman Kozłowski DSc
Marcin Strojecki PhD, Leszek Krzemień PhD, Arkadiusz Kupczak PhD, (Michał Łukomski DSc), (Łukasz Bratasz DSc)
Agata Mleczkowska - PhD student

Theoretical and Experimental Biocatalysis
Associate Professor Tomasz Borowski DSc
Associate Professor Maciej Szaleniec DSc, Ewa Niedziałkowska PhD, Przemysław Porębski PhD, Maciej Guzik PhD, Mateusz Tataruch PhD, Anna Miłaczewska PhD, Agnieszka Rugor PhD, (Professor Ewa Brocławik DSc)
PhD students: Ewa Wierus, Beata Mrugała, Anna Kluza, Zuzanna Wojdyła, Wojciech Snoch

Quantum Chemistry - Research on Catalysts and Catalytic Reactions
Professor Małgorzata Witko DSc, Member of Polish Academy of Sciences
Associate Professor Renata Tokarz-Sobieraj DSc, Robert Gryboś PhD, Anna Micek-Ilnicka DSc, Urszula Filek PhD
PhD students: Agnieszka Drzewiecka-Matuszek, Aleksandra Kirpsza, Natalia Ogrodowicz

Functionalized Molecular Sieves
Professor Ewa Brocławik DSc, Member of Polish Academy of Arts and Sciences
Professor Bogdan Sulikowski DSc, (Professor Mirosław Derewiński DSc), Ewa Włoch PhD, Jerzy Podobiński MSc, Mariusz Gackowski PhD
PhD students: Krystyna Durczyk, Adam Stępniewski

Catalysis in the Protection of Natural Environment
Dorota Rutkowska -Żbik DSc
Małgorzata Ruggiero-Mikołajczyk PhD, Katarzyna Samson PhD, Michał Śliwa PhD, Wojciech Rojek MSc
PhD students: Agnieszka Kornas, Agata Żelazny, Joanna Miąsik

Colloids
Professor Zbigniew Adamczyk DSc, Member of Polish Academy of Arts and Sciences
Associate Professor Paweł Weroński DSc, Jakub Barbasz DSc, (Anna Bratek-Skicki PhD), Aneta Michna PhD, Małgorzata Nattich-Rak PhD, Lilianna Szyk-Warszyńska PhD, Monika Wasilewska PhD, Magdalena Oćwieja PhD, Katarzyna Kusak Eng, Elżbieta Porębska, Maria Morga PhD, Paulina Żeliszewska PhD, (Piotr Batys PhD), Marta Sadowska MSc, Elżbieta Porębska
PhD students: Julia Maciejewska-Prończuk, Dawid Lupa

XRD and Thermoanalysis Laboratory
Professor Wiesław Łasocha DSc
(Dariusz Mucha PhD)
Barbara Bożek - PhD student

Layered Minerals, Mesoporous Oxides, Nanostructures
Professor Ewa Serwicka-Bahranowska DSc
Elżbieta Bielańska PhD, Roman Dula PhD, Dorota Duraczyńska PhD, Robert Karcz PhD, Alicja Michalik-Zym PhD, Katarzyna Pamin PhD, Jan Połtowicz PhD, Małgorzata Zimowska PhD, Daria Napruszewska MSc, Joanna Kryściak-Czerwenka PhD
Joanna Piotrowska - PhD student

Nanostructures of Soft Matter
Professor Piotr Warszyński DSc
Ewelina Jarek PhD, Marta Kolasińska-Sojka PhD, Krzysztof Szczepanowicz PhD, Marzena Noworyta Eng, Professor Paweł Nowak DSc, Grzegorz Mordarski PhD, Michał Mosiałek DSc, Magdalena Kowacz PhD
PhD students: Karolina Podgórna, Marta Łapczyńska, Magdalena Włodek, Aneta Kędra, Zofia Krasińska, Anna Kida

Surface Nanostructures
Professor Józef Korecki DSc
Jacek Gurgul PhD, Ewa Madej PhD, Robert Socha PhD, Associate Professor Nika Spiridis DSc, Dorota Wilgocka-Ślęzak PhD, Kinga Freindl PhD, Piotr Mazalski PhD
PhD students: Joanna Wojas, Natalia Kwiatek

Catalytic Processes for Clean Energy
Professor Alicja Drelinkiewicz DSc
Monika Góral-Kurbiel PhD, Robert Kosydar PhD, Erwin Lalik PhD, Aleksandra Pacuła PhD
Phd students: Michał Kołodziej, Tomasz Szumełda

Dispersed Systems
Professor Kazimierz Małysa DSc
Marcel Krzan PhD, Jan Zawała DSc, Anna Niecikowska PhD
Agata Wiertel - PhD student

RESEARCH THEMES AND PROJECTS

- **Leading National Research Centre** as member of the Marian Smoluchowski Krakow Research Consortium "Matter-Energy-Future"

STATUTORY RESEARCH

2014

Catalytic Materials and Processes for Sustainable Development

- Nanomaterials Based on Layered Minerals
- Catalytic Processes with Participation of Bio-reagents
- Studies on the Transformation of Furfuryl Alcohol towards Bio-components for Fuels and Plastics
- New Peroxo-compounds of Mo(VI), W(VI) and V(V). Synthesis, Structural Studies and Applications in Oxidation Processes
- Photocatalytic Degradation Processes of Organic Pollutants in Water with the Simultaneous Action of Oxidant – Degradation Products Analysis
- Materials with Variable Porous Structures: Synthesis, Physicochemical and Catalytic Properties; Spectroscopic and Quantum-chemical Studies
- New Cathode Materials for Solid Oxide Fuel Cells

Physical Chemistry of Surfaces and Nanostructures – Experiment and Theory

- Theoretical Calculations of Catalytic Activity of Oxide Catalysts, with Special Consideration Namely Heteropolyacids
- Structural, Electron Properties and Dynamics of Surface and Nanostructures Studied with Microscopic and Spectroscopic Techniques Radiation in the Ultra High Vacuum Conditions
- Alcohol Conversion with Acidic Catalysts as a Method for Acidity Determination
- Reaction Mechanisms for Enzymes and Biomimetic Systems – Computational Studies

Soft Matter Nanostructures

- Topology and Electrokinetic Properties of Protein Monolayers on the Solid Substrate/electrolyte Interfaces. Determining Fibrinogen Conformations Using the Polymeric Micro-particle Adsorption Method
- Functional Polyelectrolyte Multilayers Films
- Influence of the Liquid Film Size and Surface Electrical Charge on Kinetics of the Three Phase Contact Formation at Solid Surfaces of Different Hydrophobicity
- Molecular Modeling and Prediction of Properties of Selected Systems with Potential Biomedical Importance

Physical Chemistry in the Protection of Cultural Heritage

- Model Development for the Particulate Matter Deposition in the Interiors of Historical Buildings

2015

Catalytic Materials and Processes for Sustainable Development

- Heteropolyacid-oxide Systems; their Physicochemical Properties and Catalytic Conversion of Isopropanol
- Catalytic Processes with Participation of Bio-reagents
- New Peroxo-compounds of Mo(VI), W(VI) and V(V). Synthesis, Structural Studies and Applications in Oxidation Processes
- Studies on the Transformation of Furfuryl Alcohol towards Bio-components for Fuels and Plastics
- Hydrogenation of Acetol in the Presence of Metallic Catalysts Supported on Mesoporous Silicas
- Heteropoly Compounds as Catalysts for Oxidation of Cyclohexanone to ε-Caprolactone with Molecular Oxygen
- Selective Hydrogenation of Benzene on Metal Catalysts
- Photocatalytic Activity of Layered Minerals Pillared with Transition Metal Oxides
- The Mechanism of Oxygen Reduction Reaction on Selected Cathode Materials Devoted to the High-temperature Fuel Cells

Physical Chemistry of Surfaces and Nanostructures – Experiment and Theory

- Enzymatic and Biomimetic Reactions Mechanisms – Theoretical Approach
- Materials with Variable Porous Structures: Synthesis, Physicochemical and Catalytic Properties, Spectroscopic and Quantum-chemical Studies
- Structural, Electron and Dynamics Properties of Surface and Nanostructures Studied with Microscopic and Spectroscopic Techniques in the Ultra High Vacuum Conditions
- Studies of the Influence of Microscopic and Physicochemical Parameters on the Ability of Control the Properties of Systems with Biomedical Importance
- Theoretical Calculations of Catalytic Activity of Heteropolyacids Salts

Soft Matter Nanostructures

- Topology and Electrokinetic Properties of Protein Monolayers on the Solid Substrate/Electrolyte Interfaces. Determining Conformations of Albumin Molecules Using the Micro-particle Deposition Method
- Influence of Ionic and Non-ionic Surface active Substances on Kinetics of the Three Phase Contact Formation at Hydrophilic and Hydrophobic Solid Surfaces
- Functional Polyelectrolyte Multilayers Films

Physical Chemistry in the Protection of Cultural Heritage

- Model Development for the Particulate Matter Deposition in the Interiors of Historical Buildings

2016

Catalytic Materials and Processes for Sustainable Development

- Catalytic processes using bio-resources
- New peroxo- and polyoxo- compounds of Mo(VI), W(VI) and V(V). Synthesis, structural studies and applications in oxidation processes

- Catalytic oxide systems for production high value added products – components of fuels and plastics
- Hydrogenation of acetol in the presence of metallic catalysts supported on micro- and mesoporous carriers
- Heteropoly compounds as catalysts for oxidation of cyclohexanone to ε-caprolactone with molecular oxygen
- Selective hydrogenation of benzene on metal catalysts
- Photocatalytic activity of layered mineral/transition metal oxide composites
- New composite cathode materials for high temperature fuel cells
- Enzymatic redox processes

Physical Chemistry of Surfaces and Nanostructures – Experiment and Theory

- Physical and chemical properties of heteropolycompounds and their catalytic activity in conversion of alcohols. DFT calculations vs. experiment
- Materials with variable porous structures: synthesis, physicochemical and catalytic Properties, spectroscopic and quantum-chemical studies
- Structural, electron and dynamics properties of surface and nanostructures studied with microscopic and spectroscopic techniques in the ultra-high vacuum conditions
- Studies of the influence of microscopic and physicochemical parameters on the ability to control the properties of systems with biomedical importance

Soft Matter Nanostructures

- Topology and electrokinetic properties of protein monolayers on the solid substrate/electrolyte interfaces. Determining conformations of blood serum proteins by streaming potential measurements and nanoparticle and polymeric microparticle deposition
- Determination of mechanisms of synthesis, structure, and transport parameters of supported colloidal particle multilayers
- Influence of kinetic energy on kinetics of bubble coalescence at free surface of pure liquids
- Functional multilayer polyelectrolyte films

Physical Chemistry in the Protection of Cultural Heritage

- Modelling environmental conditions and energy consumption in buildings preserving cultural heritage assets

RESEARCH PROJECTS

Research Projects of the Ministry of Science and Higher Education

- N N204 205240 [2011-2014] Studies of Structure and Properties of a Magnetically Triggered Molecular Nanocontainer
- N N204 133640 [2011-2014] Influence of Micro- and Nano-bubbles at Hydrophobic Surfaces on Kinetic and Mechanism of the Three Phase Contact Formation in Milliseconds Timescale
- N N204 439640 [2011-2014] Quantum-chemical Studies on the Mechanism of Transmetallation Reaction of Porphyrin and its Selected Derivatives
- N N204 439040 [2011-2014] The New Multi-layered Systems with Controlled Architecture and Functionality
- N N209 757340 [2011-2014] Application of Membrane Emulsification for Formation of Nano- and Microcapsules' Cores

"Sonata Bis" Research Projects of the National Science Centre

- ST4 [2013-2017] Computer Aided Design and Prediction of Properties of Drug Delivery Systems Based on the Structure of Carbon Nanotubes
- NZ1 [2015-2020] 2-Oxoglutarate Dependent Oxygenases in the Biosynthesis of Pharmacologically Active Alkaloids - Structure, Catalytic Mechanisms and Rational Redesign
- ST4 [2016-2020] Molecular mechanics force field for structure, dynamics and conformation of carbohydrates involving furanoses

"Sonata" Research Projects of the National Science Centre

- HS2 [2011-2014] Impact of Heating Historic Churches on Transfer and Deposition of Dust
- ST5 [2011-2016] New Pd-Pt/Hybrid Nanocomposite Catatalysts for Oxygen Reduction in Polymer Electrolyte Membrane Fuel Cell
- ST5 [2011-2014] Functionalization of the Polymer Films as a Tool for Attainment of the Novel Materials of Broad Utility Spectrum
- ST4 [2012-2015] Conformational Changes of the Pyranose Rings: Computer Simulations
- ST5 [2012-2017] Targeted Drug Delivery Systems - Synthesis and Functionalization of Nanocarriers
- ST4 [2013-2017] The Mechanism of Regioselective Oxidation of Cholesterol Derivatives by a Novel Molybdenum Enzyme, Steroid 25-OH Dehydrogenase from *Stereolibacterium denitrificans*
- ST4 [2013-2017] Mechanism and Kinetics of Bubble Coalescence at Undisturbed and Vibrating, with Controlled Frequency and Amplitude, Liquid/gas Interfaces
- ST4 [2015-2018] New Protein Bilayer System Based on Antigen-Antibody Interactions – *In situ* Physicochemical Characteristics

"Opus" Research Projects of the National Science Centre

- HS2 [2011-2014] Mechanism of Damage of Panel Paintings Taking into Account Growth Ring Structure of Wood and Real World Climate Fluctuations
- ST8 [2011-2014] New Development in Technology of Stable and Biodegradable Foam Generation - for Industrial and Biomedical Applications
- ST5 [2012-2015] Influence of Glycerol as Non-Toxic and Biodegradable Solvent on the Mechanism of Phenol Oxidation
- ST4 [2012-2014] Properties of Chromium(VI), Molybdenum(VI) and Tungsten(VI) Monomeric Oxo Species on Amorphous Silica and Al-Modified Silica from Periodic DFT Simulations
- ST4 [2012-2015] Physicochemical and Catalytic Properties of Heteropolyacids Modified with Copper Ions. Theoretical Calculations vs. Experiment
- ST4 [2012-2015] Mechanism of Ionic Surfactant - Polyelectrolyte Interactions in the Process of Formation of New Generation of Nanocarrier
- NZ1 [2012-2016] Structure and Function of Acireductone Dioxygenases – Experimental and Computational Studies
- ST4 [2013-2016] The Surface Chemistry Studies of the Hybrid Catalysts as the Method for the Explanation of Their Catalytic Properties in the High Pressure Dimethyl Ether Synthesis from the H_2/CO_2 Mixture
- ST5 [2013-2016] Novel Layered Porous Materials Based on Zeolite Nanoclusters for the Liquid-Phase Catalytic Processes
- ST5 [2013-2016] Design, Synthesis, and Physicochemical Characterization of Ruthenium Catalysts and Their Application in Hydrogenation od Prochiral Ketones

- ST4 [2013-2016] Dynamics of Oscillations in the Palladium/Hydrogen System
- ST4 [2013-2016] Adsorption Mechanisms of Anisotropic Proteins under Controlled Transport Conditions
- ST4 [2013-2016] Structure and Properties of Protein Layers: from Biomolecules to a Functional Layer (A Combined Experimental and Simulation Study)
- ST5 [2014-2017] Synthesis and Physicochemical Characterization of the Electrocatalysts Containing Non-noble (Fe, Mn) and Noble (Pd) Metals Deposited on Porous N-Doped Carbon Materials with Different Morphologies and Examination them in Oxygen Reduction Reaction
- ST5 [2014-2017] Innovative Total Oxidation Catalysts Derived from Organosmectites Intercalated with Reverse Micelles Containing Oxide/hydroxide Nanostructures
- NZ1 [2015-2017] 2-Oxoglutarate Dependent Oxygenases Catalyzing Atypical Oxidative Transformations - Structural and Mechanistic Studies
- ST5 [2016-2019] Theranostic nanocarriers for MRI imaging
- ST5 [2016-2019] A new generation of hierarchical Y and omega zeolite catalysts: advanced IR and NMR studies and molecular modeling
- ST5 [2016-2019] Nanoparticle monolayers of controlled heterogeneity and structure as efficient antifoulong substrates

"Preludium" Research Projects of the National Science Centre

- ST5 [2012-2014] Synthesis of biocompatible nanocarriers for selected neuroprotective agents
- ST4 [2013-2015] Improving the Method of Detection of Hydrogen Peroxide by Modifying Films Containing Prussian Blue Nanoparticles by Conductive Polymers and Reduced Graphene Oxide Sheets
- ST5 [2013-2015] Multilayer Polymer Films Containing Nanoparticles and Graphene as a Functional Coatings and Membranes
- ST5 [2013-2015] Electrokinetic Characteristics of Interaction between Recombinant HSA Monolayers and Ionic Ligands
- ST4 [2013-2015] Determining Mechanisms of Fibrinogen Adsorption on Colloids Particles
- ST4 [2014-2016] Electronic Coupling of Nitric Oxide with Cobalt Centers in Various Coordination Environments: Impact of Electron Density Flow on Ligand Activation
- ST4 [2014-2016] Mechanism of Irreversible Nanoparticles Adsorption on Colloids Particles
- ST4 [2016-2017] Polyelectrolyte-lipids films with incorporation hydrophobic nanoparticles

"Harmonia" Research Projects of the National Science Centre

- ST4 [2013-2015] Visualizing the Local Reaction Kinetics: From the Mesoscopic to the Nanoscale

"Fuga" Research Projects of the National Science Centre

- ST3 [2015-2018] High resolution analysis of the spatial properties of structured magnetic nanostructures
- ST4 [2015-2018] Effect of electromagnetic radiation in the infrared range on protein-surface interactions

“Iuventus Plus” Programme Projects of the Ministry of Science and Higher Education

- IP2011 0353 71 [2012-2014] A New Method of Silver Sol Synthesis and Mechanism of Colloidal Particles Interaction with Heterogeneous Surfaces Determined by Electrokinetic Phenomena and AFM, Fluorescent Microscopy and QCM-D Techniques

- IP2012 006372 [2013-2015] The Advanced Theoretical Study on the Mutarotation Reaction of D-Glucopyranose
- IP2012 058972 [2013-2015] Magnetic Responsive Drug Delivery Systems with the Controlled Release Properties
- [2014-2016] Theoretical Modeling of Influence of Liquid/Gas Interface Fluidity Variations on Kinetics of Bubble Collision with Liquid/Gas and Liquid/Solid Interfaces
- [2016-2019 Determination of the influence of surface properties of silver nanoparticles on their cytotoxic activity towards the human cells of immune system and the cells of connective tissues

"Pomost" Programme Research Projects of the Polish Foundation for Science

- FNP 2011-3/7 [2011-2014] Selective Hydrogenolysis of Glycerol to Glycols via Acetol on Heterogeneous Metal/Metal Oxides Based Catalysts

Strategic Research Projects of the National Centre for Research and Development

- NCBiR SP/J/7/170071/12 [2012-2015] NUCLEAR Catalysts for Recombination of Hydrogen and Oxygen in Nuclear Reactors. Catalysts Activity as a Crucial Parameter Determining Safety of Recombiners Performance

Applied Research Programme Projects of the National Centre for Research and Development

- NCBiR PBS2/A9/24/2013 [2013-2017] HERIVERDE Energy Efficiency of Museum and Library Institutions

"Leader" Programme Research Projects of the National Centre for Research and Development

- NCBiR LIDER/33/147/L-3/11/NCBR/2012 [2012-2016] Regioselective Oxidation of Cholesterol Derivatives with a Novel Molybdoenzyme – 25-OH Cholesterol Dehydrogenase

EC 7th Framework Programme Projects

- EC FP7-NMP-2012-CSA-6 [2012-2015] NanoIES Nanotechnology Education for Industry and Society (CSA)
- EC 7th 310420 [2013-2015] HYPERCONNECT Functional Joining of Dissimilar Materials Using Directed Self-Assembly of Nanoparticles by Capillary-Bridging (CP)

EU COST Actions

- EU COST Action CM1101 [2012-2016] Colloidal Aspects of Nanoscience for Innovative Processes and Materials
- EC COST CM 1305 [2012-2016] ECOSTBio Explicit Control Over Spin-states in Technology and Biochemistry
- EC COST CM1203 [2012-2016] PoCheMoN Polyoxometalate Chemistry for Molecular Nanoscience
- EC COST EU COST Action MP1106 [2012-2016] SGI Smart and Green Interfaces - from Single Bubbles and Drops to Industrial, Environmental and Biomedical Applications

Projects of the Polish-Norwegian Research Programme

- [2013-2016] NANONEUCAR Nanoparticulate Delivery Systems for Therapies Against Neurodegenerative Diseases

- [2013-2015] FUNClay Synthesis and Functionality of Innovative Porous Clay Hybrid Nanostructures
- [2014-2016] InlinePV In-line Procesing of n+/p and p/p+ Junction System for Cheap Photovoltaic Module Production

Projects of EU Structural Funds Programmes

- PO KL 4.1.1 [2009-2015] ISD Advanced Materials for the New Technologies and Energy of the Future
- PO IG 1.3.1. [2009-2014] BIOTRANSFORMACJE Biotransformations Useful in Pharmaceutical and Cosmetics Industry
- POIG 1.1.2. [2009-2014] FUNANO Functional Nano- and Microparticles, Synthesis aPnd Applications in Innovative Materials and Technologies
- PO KL 4.1.1 [2010-2015] ISD MOLMED Molecular Sciences for Medicine

Other International Projects

- Intergovernmental Polish-Slovak Project [2013-2015] Organo-Clays as Intermediates for the Synthesis of Functional Hybrid Materials
- Intergovernmental Polish-Slovak Project [2016-2018] Immobilization of metal nanoparticles on organo-modified layered silicates
- SCIEX Project [2014] Advanced Computer Simulations of Hyaluronan Conformational Properties

Projects of the Consortium "Coal Fuel Cells" under auspices of the Ministry of Economy+

- [2012-2014] Molten Carbonate Electrolyte Direct Carbon Fuel Cell (DC-MCFC)

SCIENTIFIC OUTPUT OF THE INSTITUTE

Printed scientific publications

2014

Monographs

1. M.Oćwieja "Kinetyka tworzenia oraz stabilność monowarstw nanocząstek srebra. Badania podstawowe w dobie dynamicznego rozwoju nanotechnologii" (T.Czarnik, ed.), Wydawnictwo Bezkresy Wiedzy, Saarbrücken 2014, pp.248 [ISBN 978-3-639-89158-4]

Chapters in monographs

1. Z.Adamczyk, M.Dąbrowska, M.Kujda, K.Sofińska "Human serum albumin adsorption on solid substrates-electrokinetic studies", in: "Colloid and Interface Chemistry for Nanotechnology" (P.Kralchevsky, R.Miller, F.Ravera, eds.), CRC Press Taylor and Francis Group, Boca Raton 2013, pp.405-437 [ISBN 978-1-4665-6905-8] – printed 2014

2. T.Borowski, E.Brocławik "Bioinorganic Reaction Mechanisms – Quantum Chemistry Approach", in: "Computational Methods to Study the Structure and Dynamics of Biomolecules and Biomolecular Processes: From Bioinformatics to Molecular Quantum Mechanics" (A.Liwo, ed.), Springer-Verlag, Berlin, Heidelberg 2014, pp.783-808 [ISBN 978-3-642-28553-0]

3. P.Ozga, H.Kazimierczak, Z.Świątek, M.Słupska, A.Dębski, E.Bielańska, R.Socha, B.Onderka, M.Michalec "Opracowanie podstaw elektrolitycznego otrzymywania stopów na bazie Zn-Sn oraz Mn-Sn z domieszką molibdenu lub wolframu zastępujących kadm oraz eliminujących Cr(VI)", in: "Zaawansowane materiały i technologie ich wytwarzania" (Z.Śmieszek, ed.), Instytut Metali Nieżelaznych, Gliwice 2014, pp.497-510 [ISBN 978-83-938792-1-2]

4. M.Radoń, E.Brocławik "Electronic Properties of Iron Sites and Their Active Forms in Porphyrin-Type Architectures", in: "Computational Methods to Study the Structure and Dynamics of Biomolecules and Biomolecular Processes: From Bioinformatics to Molecular Quantum Mechanics" (A.Liwo, ed.), Springer-Verlag, Berlin, Heidelberg 2014, pp.711-782 [ISBN 978-3-642-28553-0]

5. M.Szaleniec, P.Waligórski "Zastosowanie analizy dyskryminacyjnej i klasyfikacyjnych sieci neuronowych do przewidywania zjawiska samoniezgodności kapusty białej (Brassica oleracea var. capitata) w oparciu o eksperymenty elektroforetyczne", in: "Zastosowania statystyki i data mining w badaniach naukowych i innowacyjnych" (J.Jakobowski, ed.), StatSoft Polska, Kraków 2014, pp.45-61 [ISBN 978-83-88724-71-8]

Articles in journals evaluated in Thomson Reuters Journal Citation Reports

1. M.Adamczak, A.Kupiec, E.Jarek, K.Szczepanowicz, P.Warszyński "Preparation of the squalene-based capsules by membrane emulsification method and polyelectrolyte multilayer adsorption", Colloid Surf. A-Physicochem. Eng. Asp., 462 (2014) 147152

2. Z.Adamczyk, A.Bratek-Skicki, P.Żeliszewska, M.Wasilewska "Mechanisms of Fibrinogen Adsorption at Solid Substrates", Curr. Top. Med. Chem., 14 (2014) 702729

3. Z.Adamczyk, K.Jamroży, P.Batys, A.Michna "Influence of ionic strength on poly(diallyldimethylammonium chloride) macromolecule conformations in electrolyte solutions", J. Colloid Interface Sci., 435 (2014) 182190

4. C.J.Allpress, A.Miłaczewska, T.Borowski, J.R.Bennett, D.L.Tierney, A.M.Arif, L.M.Berreau "Halide-Promoted Dioxygenolysis of a Carbon-Carbon Bond by a Copper(II) Diketonate Complex", J. Am. Chem. Soc., 136 (2014) 78217824

5. W.Barzyk, K.Lunkenheimer, P.Warszyński, B.Jachimska, A.Pomianowski "Effect of molecular structure of amphiphiles on the surface pressure and electric surface potential isotherms at the air/solution interface", Colloid Surf. A-Physicochem. Eng. Asp., 443 (2014) 515524

6. W.Barzyk, A.Pomianowski "Application of the Lippmann electrocapillary equation to adsorption potential shift at the air/solution interface - Analysis for undissociated n-decanoic acid", J. Electroanal. Chem., 722 (2014) 119-130

7. P.Batys, P.Weroński "Porosity and tortuosity of layer-by-layer assemblies of spherical particles", Model. Simul. Mater. Sci. Eng., 22 (2014) 065017

8. M.R.A.Blomberg, T.Borowski, F.Himo, R.-Z.Liao, P.E.M.Siegbahn "Quantum Chemical Studies of Mechanisms for Metalloenzymes", Chem. Rev., 114 (2014) 36013658

9. P.Boroń, L.Chmielarz, J.Gurgul, K.Łątka, B.Gil, J.-M.Krafft, S.Dźwigaj "The influence of the preparation procedures on the catalytic activity of Fe-BEA zeolites in SCR of NO with ammonia and N_2O decomposition", Catal. Today, 235 (2014) 210225

10. T.Borowski "DFT studies on extradiol ring cleavage of 4-nitrocatechol by homoprotocatechuate 2,3-dioxygenase (HPCD) - effects of metal substitution", J. Biol. Inorg. Chem., 19 (2014) S286S286

11. A.Bratek-Skicki, P.Żeliszewska, Z.Adamczyk "Human Fibrinogen Adsorption on Latex Particles at pH 7.4 Studied by Electrophoretic Mobility and AFM Measurements", Curr. Top. Med. Chem., 14 (2014) 640648

12. E.Brocławik, A.Stępniewski, M.Radoń "Nitric oxide as a non-innocent ligand in (bio-) inorganic complexes: Spin and electron transfer in Fe-II-NO bond", J. Inorg. Biochem., 136 (2014) 147153

13. A.Brzyska, Woliński "Enforced conformational changes in the structural units of glycosaminoglycan (non-sulfated heparin-based oligosaccharides)", RSC Adv., 4 (2014) 3664036648

14. U.Bubniene, M.Oćwieja, B.Bugelyte, Z.Adamczyk, M.Nattich-Rak, J.Voronoyic, A.Ramanaviciene, A.Ramanavicius "Deposition of gold nanoparticles on mica modified by poly(allylamine hydrochloride) monolayers", Colloid Surf. A-Physicochem. Eng. Asp., 441 (2014) 204210

15. M.Cieśla, J.Barbasz "Kinetics of random sequential adsorption of nearly spherically symmetric particles", Phys. Rev. E, 89 (2014) 022401

16. M.Cieśla, J.Barbasz "Random packing of regular polygons and star polygons on a flat two-dimensional surface", Phys. Rev. E, 90 (2014) 022402

17. J Cybulska, A.Brzyska, A.Zdunek, K.Woliński "Simulation of Force Spectroscopy Experiments on Galacturonic Acid Oligomers", PLoS One, 9 (2014) e107896

18. T.Czeppe, E.Korznikova, P.Ozga, M.Wróbel, Lityńska-Dobrzyńska, G.F.Korznikova, A.W.Korznikov, P.Czaja, R.Socha "Composition and Microstructure of the Al-Multilayer Graphene Composites Achieved by the Intensive Deformation", Acta Phys. Pol. A, 126 (2014) 921927

19. M.Dąbkowska, Z.Adamczyk "Mechanism of immonoglobulin G adsorption on mica-AFM and electrokinetic studies", Colloid Surf. B-Biointerfaces, 118 (2014) 5764

20. M.Derewiński, P.Sarv, X.Sun, S.Mueller, A.C.van Veen, J.A.Lercher "Reversibility of the Modification of HZSM-5 with Phosphate Anions", J. Phys. Chem. C, 118 (2014) 61226131

21. K.Drabczyk, R.Socha, P.Panek, G.Mordarski "Electrodeposition of thin metallic layer for solar cell electrodes", Solder. Surf. Mt. Technol., 26 (2014) 1821

22. A.Drelinkiewicz, Ż.Kalemba-Jaje, E.Lalik, R.Kosydar "Organo-sulfonic acids doped polyaniline-based solid acid catalysts for the formation of bio-esters in transesterification and esterification reactions", Fuel, 116 (2014) 760771

23. M.M.Dudek, M.Mosiałek, P.Nowak, J.Wojewoda-Budka, M.Reben "Silver migration at the Ag|Sm0.2Ce0.8O1.9 interface", J. Solid State Electrochem., 18 (2014) 25292537

24. M.Dudek, R.Socha "Direct Electrochemical Conversion of the Chemical Energy of Raw Waste Wood to Electrical Energy in Tubular Direct Carbon Solid Oxide Fuel Cells", Int. J. Electrochem. Sci., 9 (2014) 7414-7430

25. M.Dudek, P.Tomczyk, R.Socha, M.Hamaguchi "Use of ash-free Hyper-coal as a fuel for a direct carbon fuel cell with solid oxide electrolyte", Int. J. Hydrog. Energy, 39 (2014) 1238612394

26. M.Gackowski, K.Małek "Surface-enhanced Raman spectroscopy of tridehydropeptides adsorbed on silver electrode", J. Mol. Struct., 1065 (2014) 143149

27. T.Giela, K.Freindl, N.Spiridis, J.Korecki "Au(111) films on W(110) studied by STM and LEED - Uniaxial reconstruction, dislocations and Ag nanostructures", Appl. Surf. Sci., 312 (2014) 9196

28. K.Góra-Marek, A.Stępniewski, M.Radoń, E.Brocławik "Ammonia-modified Co(II) sites in zeolites: IR spectroscopy and spin-resolved charge transfer analysis of NO adsorption complexes", Phys. Chem. Chem. Phys., 16 (2014) 2408924098

29. M.Góral-Kurbiel, A.Drelinkiewicz, P.Kosydar, B.Dembińska, P.J.Kulesza, J.Gurgul "Palladium Content Effect on the Electrocatalytic Activity of Palladium-Polypyrrole Nanocomposite for Cathodic Reduction of Oxygen", Electrocatal., 5 (2014) 2340

30. M.Góral-Kurbiel, A.Drelinkiewicz, R.Kosydar, J.Gurgul, B.Dembińska, P.J.Kulesza "The effect of Nafion ionomer on electroactivity of palladium-polypyrrole catalysts for oxygen reduction reaction", J. Solid State Electrochem., 18 (2014) 639653

31. N.Guesmi, R.Gryboś, J.Handzlik, F.Tielens "Characterization of molybdenum monomeric oxide species supported on hydroxylated silica: a DFT study", Phys. Chem. Chem. Phys., 16 (2014) 1825318260

32. J.Gurgul, K.Łątka, A.Pacyna, S.C.Peter, R.Poettgen "TbRhSn and DyRhSn - Detailed magnetic and Sn-119 Mossbauer spectroscopic studies", Intermetallics, 46 (2014) 5664

33. E.Jamróz, G.Para, B.Jachimska, K.Szczepanowicz, P.Warszyński, A.Para "Albumin-furcellaran complexes as cores for nanoencapsulation", Colloid Surf. A-Physicochem. Eng. Asp., 441 (2014) 880884

34. G.Jerz, N.Gebers, D.Szot, M.Szaleniec, P.Winterhalter, S.Wybraniec "Separation of amaranthine-type betacyanins by ion-pair high-speed countercurrent chromatography", J. Chromatogr. A, 1344 (2014) 4250

35. S.Jose, P.Surendran, Y.Wang, I.Herrera, L.Krzemień, S.Whitlock, R.McLean, A.Sidorov, P.Hannaford "Periodic array of Bose-Einstein condensates in a magnetic lattice", Phys. Rev. A, 89 (2014) 051602

36. Ż.Kalemba-Jaje, A.Drelinkiewicz, E.Lalik, E.N.Konyushenko, J.Stejskal "Bio-esters formation in transesterification and esterification reactions on carbon and silica supported organo-sulfonic acids-polyaniline solid catalysts", Fuel, 135 (2014) 130145

37. A.Kania, M.Pilch, D.Rutkowska-Żbik, A.Susz, Heriyanto; G.Stochel, L.Fiedor "High-Pressure and Theoretical Studies Reveal Significant Differences in the Electronic Structure and Bonding of Magnesium, Zinc, and Nickel Ions in Metalloporphyrinoids", Inorg. Chem., 53 (2014) 84738484

38. A.Karabasz, M.Bzowska, S.Łukasiewicz, J.Bereta, K.Szczepanowicz "Cytotoxic activity of paclitaxel incorporated into polyelectrolyte nanocapsules", J. Nanopart. Res., 16 (2014) 2340

39. K.Kilan, P.Warszyński "Thickness and permeability of multilayers containing alginate cross-linked by calcium ions", Electrochim. Acta, 144 (2014) 254262

40. P.Konieczny, R.Pełka, M.Grzesiak-Nowak, A.Szymańska, W.Łasocha, Wasiutyński "Magnetic properties of copper dimolybdate $CuMo_2O_{7.3}H_{(2)}O$", J. Magn. Magn. Mater., 362 (2014) 180183

41. P.Konieczny, R.Pełka, M.Grzesiak-Nowak, A.Szymańska, W.Łasocha, Wasiutyński "Magnetic Properties of Transition Metal Molybdates", Acta Phys. Pol. A, 126 (2014) 250-251

42. J.Koperski, T.Urbańczyk, M.Krośnicki, M.Strojecki "Free <- bound and bound <- bound profiles in excitation spectra of the B(3)1 <- X(1)0(+) transition in CdNg (Ng = noble gas) complexes", Chem. Phys., 428 (2014) 43-52

43. T.Korona, D.Rutkowska-Żbik "A theoretical study on elementary building blocks for organic solar cells - Influence of a donor molecule on electronic spectrum of PCBM", Comput. Theor. Chem., 1040 (2014) 243258

44. D.Kosior, J.Zawała, K.Małysa "Influence of n-octanol on the bubble impact velocity, bouncing and the three phase contact formation at hydrophobic solid surfaces", Colloid Surf. A-Physicochem. Eng. Asp., 441 (2014) 788795

45. D.Kosior, J.Zawała, R.Todorov, D.Exerowa, K.Małysa "Bubble bouncing and stability of liquid films formed under dynamic and static conditions from n-octanol solutions", Colloid Surf. A-Physicochem. Eng. Asp., 460 (2014) 391400

46. A.Kozioł-Rachwał, T.Ślęzak, K.Matlak, P.Kuswik, M.Urbaniak, F.Stobiecki, L.D.Yao, S.van Dijken, J.Korecki "Tunable magnetic properties of monoatomic metal-oxide Fe/MgO multilayers", Phys. Rev. B, 90 (2014) 045428

47. A.Kozioł-Rachwał, T.Ślęzak, K.Matlak, E.Młyńczak, N.Spiridis, J.Korecki "Antiferromagnetic interlayer exchange coupling in epitaxial Fe/MgO/Fe trilayers with MgO barriers as thin as single monolayers", J. Appl. Phys., 115 (2014) 104301

48. E.Lalik "Chaos in oscillatory sorption of hydrogen in palladium", J. Math. Chem., 52 (2014) 21832196

49. M.Leżańska, A.Olejniczak, A.Pacuła, G.Szymański, J.Włoch "The influence of microporosity creation in highly mesoporous N-containing carbons obtained from chitosan on their catalytic and electrochemical properties", Catal. Today, 227 (2014) 223232

50. J.Li, A.Pant, Ch.F.Chin, W.H.Ang, C.Menard-Moyon, T.R.Nayak, D.Gibson, S.Ramaprabhu, T.Pańczyk, A.Bianco, G.Pastorin "In vivo biodistribution of platinum-based drugs encapsulated into multi-walled carbon nanotubes", Nanomed.-Nanotechnol. Biol. Med., 10 (2014) 14651475

51. S.Łukasiewicz, K.Szczepanowicz "In vitro Interaction of Polyelectrolyte Nanocapsules with Model Cells", Langmuir, 30 (2014) 11001107

52. M.Łukomski "Painted wood. What makes the paint crack? (vol 13, pg S90, 2012)", J. Cult. Herit., 15 (2014) E1-E1

53. T.Machej, E.M.Serwicka, M.Zimowska, R.Dula, A.Michalik-Zym, B.Napruszewska, W.Rojek, R.Socha "Cu/Mn-based mixed oxides derived from hydrotalcite-like precursors as catalysts for methane combustion", Appl. Catal. A-Gen., 474 (2014) 8794

54. W.Makowski, M.Manko, P.Zabierowski, K.Mlekodaj, D.Majda, J.Szklarzewicz, W.Łasocha "Unusual adsorption behavior of volatile hydrocarbons on MOF-5 studied using thermodesorption methods", Thermochim. Acta, 587 (2014) 110

55. K.Małysa, R.Miller, P.Warszyński "Preface", Colloid Surf. A-Physicochem. Eng. Asp., 441 (2014) 787787

56. L.Manjakkala, K.Cvejin, J.Kulawik, K.Zaraska, D.Szwagierczak, R.P.Socha "Fabrication of thick film sensitive RuO_2-TiO_2 and Ag/AgCl/KCl reference electrodes and their application for pH measurements", Sens. Actuator B-Chem., 204 (2014) 5767

57. L.Matachowski, A.Drelinkiewicz, E.Lalik, M.Ruggiero-Mikolajczyk, D.Mucha, J.Kryściak-Czerwenka "Efficient dehydration of ethanol on the self-organized surface layer of $H_3PW_{12}O_{40}$ formed in the acidic potassium tungstophosphates", Appl. Catal. A-Gen., 469 (2014) 290299

58. L.Matachowski, A.Drelinkiewicz, D.Mucha, J.Kryściak-Czerwenka, R.Rachwalik "Preparation of active $Cs_2HPW12O_{40}$ catalyst with the 'core-shell' secondary structure by a self-organizing process", Appl. Catal. A-Gen., 469 (2014) 239249

59. A.Michna, Z.Adamczyk, K.Kubiak, K.Jamroży "Formation of PDADMAC monolayers evaluated in situ by QCM and streaming potential measurements", J. Colloid Interface Sci., 428 (2014) 170177

60. A.Miłaczewska, T.Borowski, P.Porębski, K.L.Tkaczuk, M.Chruszcz, W.Minor, W.Minor "Acireductone dioxygenation - structural and computational studies", J. Biol. Inorg. Chem., 19 (2014) S294S294

61. E.Młyńczak, J.Gurgul, J.Przewoźnik, D.Wilgocka-Ślęzak, K.Freindl, N.Spiridis, J.Korecki "Effect of interfacial iron oxidation on the exchange bias in CoO/Fe bilayers", Appl. Surf. Sci., 304 (2014) 8690

62. M.Morga, Z.Adamczyk, M.Oćwieja, E.Bielańska "Hematite/silver nanoparticle bilayers on mica - AFM, SEM and streaming potential studies", J. Colloid Interface Sci., 424 (2014) 7583

63. M.Mosiałek, M.Dudek, A.Michna, M.Tatko, A.Kędra, M.Zimowska "Composite cathode materials Ag-$Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_3$ for solid oxide fuel cells", J. Solid State Electrochem., 18 (2014) 30113021

64. M.Mosiałek, G.Nawrat, L.Szyk-Warszyńska, J.Żak, A.Maciej, K.Radwański, A.Winiarski, J.Szade, P.Nowak, W.Simka "Anodic oxidation of the Ti-13Nb-13Zr alloy", J. Solid State Electrochem., 18 (2014) 30733080

65. M.Mosiałek, P.Nowak, M.Dudek, G.Mordarski "Oxygen reduction at the Ag vertical bar $Gd_{0.2}Ce_{0.8}O_{1.9}$ interface studied by electrochemical impedance spectroscopy and cyclic voltammetry at the silver point electrode", Electrochim. Acta, 120 (2014) 248257

66. D.Nikolova, R.Edreva-Kardjieva, E.M.Serwicka, R.Dula, T.Grozeva "State of the components of (K)(Ni)W/gamma-Al_2O_3 catalysts as oxide precursors and after water-gas shift reaction in the presence of sulphur", Appl. Catal. A-Gen., 480 (2014) 108119

67. M.Nosek, P.Batys, M.Skoczek, P.Weroński "Cyclic Voltammetry Characterization of Microparticle Monolayers", Electrochim. Acta, 133 (2014) 241246

68. M.Oszajca, A.Drzewiecka-Matuszek, A.Franke, D.Rutkowska-Żbik, M.Brindell, M.Witko, G.Stochel, R.van Eldik "Mechanistic Insight into Peroxo-Shunt Formation of Biomimetic Models for Compound II, Their Reactivity toward Organic Substrates, and the Influence of N-Methylimidazole Axial Ligation", Chem.-Eur. J., 20 (2014) 23282343

69. M.Oszajca, A.Franke, A.Drzewiecka-Matuszek, M.Brindell, G.Stochel, R.van Eldik "Temperature and Pressure Effects on C-H Abstraction Reactions Involving Compound I and II Mimics in Aqueous Solution", Inorg. Chem., 53 (2014) 28482857

70. M.Pacia, P.Warszyński, W.Macyk "UV and visible light active aqueous titanium dioxide colloids stabilized by surfactants", Dalton Trans., 43 (2014) 1248012485

71. A.Pacula, K.Pamin, A.Zięba, J.Kryściak-Czerwenka, Z.Olejniczak, E.M.Serwicka, A.Drelinkiewicz "Physicochemical and catalytic properties of montmorillonites modified with 12-tungstophosphoric acid", Appl. Clay Sci., 95 (2014) 220231

72. A.Pajor-Swierzy, M.Kolasińska-Sojka, P.Warszyński "The electroactive multilayer films of polyelectrolytes and Prussian blue nanoparticles and their application for H_2O_2 sensors", Colloid Polym. Sci., 292 (2014) 455465

73. T.Pańczyk, T.Da Ros, G.Pastorin, A.Jagusiak, J.Narkiewicz-Michałek "Role of Intermolecular Interactions in Assemblies of Nanocontainers Composed of Carbon Nanotubes and Magnetic Nanoparticles: A Molecular Dynamics Study", J. Phys. Chem. C, 118 (2014) 13531363

74. T.Pańczyk, P.Wolski, A.Jagusiak, M.Drach "Molecular dynamics study of Congo red interaction with carbon nanotubes", RSC Adv., 4 (2014) 47304-47312

75. M.Pławecka, D.Snihirova, B.Martins, K.Szczepanowicz, P.Warszyński, M.F.Montemor "Self healing ability of inhibitor-containing nanocapsules loaded in epoxy coatings applied on aluminium 5083 and galvanneal substrates", Electrochim. Acta, 140 (2014) 282 293

76. A.Płazińska, W.Płaziński, K.Jóźwiak "Fast, Metadynamics-Based Method for Prediction of the Stereochemistry-Dependent Relative Free Energies of Ligand-Receptor Interactions", J. Comput. Chem., 35 (2014) 876882

77. W.Płaziński, M.Drach "The dynamics of the conformational changes in the hexopyranose ring: a transition path sampling approach", RSC Adv., 4 (2014) 2502825039

78. W.Rudziński, E.Lalik "Aleksander Jerzy Groszek: a pioneer in adsorption calorimetry", Adsorption, 20 (2014) 999-1000

79. D.Rutkowska-Żbik, A.Drzewiecka-Matuszek, M.Witko "The Influence of Structural Parameters on the Reactivity of Model Complexes for Compound II: A Mini Review", Top. Catal., 57 (2014) 946952

80. M.Sadowska, Z.Adamczyk, M.Nattich-Rak "Mechanism of Nanoparticle Deposition on Polystyrene Latex Particles", Langmuir, 30 (2014) 692699

81. K.Samson, M.Śliwa, R.P.Socha, K.Góra-Marek, D.Mucha, D.Rutkowska-Żbik, J.-F.Paul, M.Ruggiero-Mikołajczyk, R.Grabowski, J.Słoczyński "Influence of ZrO2 Structure and Copper Electronic State on Activity of Cu/ZrO_2 Catalysts in Methanol Synthesis from CO_2", ACS Catal., 4 (2014) 37303741

82. B.Scheid, J.Zawała, S.Dorbolo "Gas dissolution in antibubble dynamics", Soft Matter, 10 (2014) 70967102

83. J.Sobczyk, P.Frączek, M.Obarzanowski, J.M.del Hoyo-Melendez, Ł.Bratasz "Digital radiography (DR) and imaging analysis for evaluating the penetration and distribution of organic substances used in wood conservation", Wood Sci. Technol., 48 (2014) 981994

84. R.P.Socha, M.Szczepanik-Ciba, W.Powroźnik, N.Spiridis, J.Korecki "Epitaxial alpha-Mn(001) films on MgO(001)", Thins Solid Films, 556 (2014) 137141

85. K.Sofińska, Z.Adamczyk, M.Kujda, M.Nattich-Rak "Recombinant Albumin Mono layers on Latex Particles", Langmuir, 30 (2014) 250258

86. M.Sowa, K.Greń, A.I.Kukharenko, D.M.Korotin, J.Michalska, L.Szyk-Warszyńska, M.Mosiałek, J.Żak, E.Pamuła, E.Z.Kurmaev, S.O.Cholakh, W.Simka "Influence of electropolishing and anodic oxidation on morphology, chemical composition and corrosion resistance of niobium", Mater. Sci. Eng. C-Mater. Biol. Appl., 42 (2014) 529-537

87. M.Sowa, A.Kazek-Kęsik, A.Krzakała, R.P.Socha, G.Dercz, J.Michalska, W.Simka "Modification of niobium surfaces using plasma electrolytic oxidation in silicate solutions", J. Solid State Electrochem., 18 (2014) 3129-3142

88. N.Spiridis, E.Madej, J.Korecki "Adsorption of Gold on an Iron-Rich Fe3O4(001) Surface", J. Phys. Chem. C, 118 (2014) 2011-2017

89. Z.Starowicz, M.Lipiński, R.P.Socha, K.Berent, G.Kulesza, P.Ozga "Photochemical silver nanoparticles deposition on sol-gel TiO_2 for plasmonic properties utilization", J. Sol-Gel Sci. Technol., (2014), DOI 10.1007/s10971-014-3522-2 – on-line journal

90. M.Strojecki, M.Łukomski, L.Krzemień, J.Sobczyk, Ł.Bratasz "Acoustic emission monitoring of an eighteenth-century wardrobe to support a strategy for indoor climate management", Stud. Conserv., 59 (2014) 225-232

91. J.Szaleniec, M.Szaleniec, P.Stręk, A.Boroń, K.Jabłońska, J.Gawlik, J.Składzień "Outcome prediction in endoscopic surgery for chronic rhinosinusitis - A multidimensional model", Adv. Med. Sci., 59 (2014) 13-18

92. M.Szaleniec, A.Dudzik, B.Kozik, T.Borowski, J.Heider, M.Witko "Mechanistic basis for the enantioselectivity of the anaerobic hydroxylation of alkylaromatic compounds by ethylbenzene dehydrogenase", J. Inorg. Biochem., 139 (2014) 9-20

93. K.Szczepanowicz, K.Podgórna, L.Szyk-Warszyńska, P.Warszyński "Formation of oil filled nanocapsules with silica shells modified by sequential adsorption of polyelectrolytes", Colloid Surf. A-Physicochem. Eng. Asp., 441 (2014) 885-889

94. T.Szumełda, A.Drelinkiewicz, R.Kosydar, J.Gurgul "Hydrogenation of cinnamaldehyde in the presence of PdAu/C catalysts prepared by the reverse water-in-oil microemulsion method", Appl. Catal. A-Gen., 487 (2014) 1-15

95. L.Szyk-Warszyńska, K.Kilan, R.P.Socha "Characterization of casein and poly-L-arginine multilayer films", ", J. Colloid Interface Sci., 423 (2014) 76-84

96. A.Szymańska, W.Nitek, D.Rutkowska-Żbik, W.Łasocha "Preparation, structural characterization, and decomposition studies of two new gamma-octamolybdates of 4-methylpyridine", Mon. Chem., 145 (2014) 921-929

97. M.Śliwa, K.Samson, M.Ruggiero-Mikołajczyk, A.Żelazny, R.Grabowski "Influence of Montmorillonite K10 Modification with Tungstophosphoric Acid on Hybrid Catalyst Activity in Direct Dimethyl Ether Synthesis from Syngas", Catal. Lett., 144 (2014) 18841893

98. Z.Tabor, P.Warszyński "Modeling dissolution controlled release of inhibitor from a damaged coating", Corrosion Sci., 82 (2014) 290-296

99. M.Tataruch, J.Heider, J.Bryjak, P.Nowak, D.Knack, A.Czerniak, J.Liesiene, M.Szaleniec "Suitability of the hydrocarbon-hydroxylating molybdenum-enzyme ethylbenzene dehydrogenase for industrial chiral alcohol production", J. Biotechnol., 192 (2014) 400-409

100. V.Ulaganathan, M.Krzan, M.Lotfi, S.S.Dukhin, V.I.Kovalchuk, A.Javadi, D.Z.Gunes, C.Gehin-Delval, K.Małysa, R.Miller "Influence of beta-lactoglobulin and its surfactant mixtures on velocity of the rising bubbles", Colloid Surf. A-Physicochem. Eng. Asp., 460 (2014) 361-368

101. D.Wodka, R.P.Socha, E.Bielańska, M.Elżbieciak-Wodka, P.Nowak, P.Warszyński "Photocatalytic activity of titanium dioxide modified by Fe2O3 nanoparticles", Appl. Surf. Sci., 319 (2014)173-180

102. A.M.Wójcik, E.Brocławik, T.Borowski, P.Siegbahn "Insights into reaction mechanisms of HMS and HPPD", J. Biol. Inorg. Chem., 19 (2014) S297-S297

103. A.Wójcik, E.Broclawik, P.E.M.Siegbahn, M.Lundberg, G.Moran, T.Borowski "Role of Substrate Positioning in the Catalytic Reaction of 4-Hydroxyphenylpyruvate Dioxygenase-A QM/MM Study", J. Am. Chem. Soc., 136 (2014) 14472-14485

104. J.Zawała, E.Małysa, M.Krzan, K.Małysa "Monitorong of Contamination of Coal Processing Plants and Environmental Waters Using Bubble Velocity Measurements – Advantages and Limitations", Physicochem. Probl. Mineral Process., 50 (2014) 143-157

105. P.Żeliszewska, A.Bratek-Skicki, Z.Adamczyk, M.Cieśla "Human Fibrinogen Adsorption on Positively Charged Latex Particles", Langmuir, 30 (2014) 11165-11174

Articles in other journals and books

1. K.Bieda, B.Jachimska "Poly(amidoamine) (PAMAM) dendrimers: physicochemical characterization for multifunctional applications", FEBS Journal special issue, 281 (2014) 665-666

2. M.Ćwięka, K.Kubiak-Ossowska, P.Mulheran, B.Jachimska "Lysozyme Adsorption at SiO_2 and Mica Surfaces: Atomistic Molecular Dynamics and Experiments", FEBS Journal special issue, 281 (2014) 628

3. M.Dudek, P.Tomczyk, B.Lis, G.Mordarski "Węglowe ogniwa paliwowe – wybrane inicjatywy krajowe", Polityka Energetyczna - Energy Policy J., 17 (2014) 81-91

4. A.Kędra, R.P.Socha, M.Zimowska, P.Panek, L.Szyk- Warszyńska, M.Lipiński, P.Warszyński "The morphology and optical properties of silicon etched with bimetallic catalysts", Elektronika, 8 (2014) 64-67

5. K.P.Korona, S.Grankowska, A.Iwan, T.Korona, D.Rutkowska-Żbik, M.Kamińska "Optical spectroscopy of polyazomethine-PCBM nanostructures", Elektronika, 9 (2014) 92-94

6. M.Krasowska, A.Niecikowska, D.Beattie "Challenges in imaging of soft layers and structures at solid surfaces using atomic force microscopy", Surf. Innov., 2 (2014) 151–159

7. M.Kujda, Z.Adamczyk, M.Morga, E.Kowalska "Comparative physicochemical studies of human albumin monomer and the synthetic cross-linked diner", FEBS Journal special issue, 281 (2014) 404

8. W.Łasocha, K.Luberda-Durnaś "New Methods in Investigations of Polycrystalline Materials", Wiad. Chem., 68 (2014)507-543

9. W.Łasocha, A.Szymańska, M.Oszajca, G.Appleby, K.Pamin, J. Połtowicz "Polymolybdates and Peroxomolybdates: Candidates for Catalysts in Industry", Acta Cryst., A70 (2014), C589

10. M.Nattich-Rak, Z.Adamczyk, M.Sadowska, M.Wasilewska, M.Cieśla "Fibrinogen Monolayers of Controlled Coverage and Conformations for Biosensing Applications", in: "Key Engineering Materials-Materials and Applications for Sensors and Transducers III" (E.Hristoforou, D.S.Vlachos, eds.), Trans Tech Publications Inc., Pfaffikon 2014, pp.243-246 [ISBN 978-3-03835-051-4]

11. M.Oćwieja, Z.Adamczyk "Monolayers of silver nanoparticles obtained by chemical reduction methods", Surf. Innov., 2 (2013) 160-172 - published 2014

12. M.Oćwieja, A.Gorczyca, M.Niemiec, Z.Adamczyk, E.Pociecha "Effect of charge-stabilized silver nanoparticles with various surface properties on physiological state of seedlings of Triticum aestivum", FEBS Journal special issue, 281 (2014) 622

13. A.Pajor-Świerzy, M.Kolasińska-Sojka, P.Warszyński „Polyelectrolyte films with Prussian Blue nanoparticles and conductive polymers", Surf. Innov., 2 (2014) 184-193

14. A.Pajor-Świerzy, T.Kruk, P.Warszyński "Enhancement of the electrocatalytic properties of Prussian Blue containing multilayer films formed by reduced graphene oxide", Colloid Interface Sci. Commun., 1 (2014) 6-9

15. P.Panek, K.Drabczyk, R.P.Socha, P.Zięba "Wpływ tylnej warstwy typu p+ na parametry ogniwa słonecznego na bazie krzemu typu p na podstawie obliczeń wykonanych programem komputerowym PC-1D", Elektronika, 8 (2014) 67-69

16. K.Sofińska, Z.Adamczyk, M.Kujda "Monolayers of human albumins on colloidal carrier particles and flat surfaces: thorough physicochemical characteristics in terms of electrokinetic methods", FEBS Journal special issue, 281 (2014) 413

17. M.Strojecki " Szafa gra…, czyli jak dzięki emisji akustycznej usłyszeć co w trawie piszczy, o czym szumią wierzby, co mówią rzeźby i na co narzekają historyczne meble", Forum Akademickie, (2) (2014) 50-52

18. J.Zawała, D.Kosior, K.Małysa "Air-Assisted Bubble Immobilization at Hydrophilic Porous Surface", Surf. Innov., 2 (2013) 235-244 - published 2014

Books issued by the Institute [with ISBN numbers]

1. "XLVI Ogólnopolskie Kolokwium Katalityczne, XVLI Polish Annual Conference on Catalysis, 19-21.03.2014, Kraków" (U.Filek, B.Sulikowski, eds.), IKiFP PAN, Kraków, 2014, pp. 318 [ISBN 978-83-60514-19-1]

2. "International Symposium on Air & Water Pollution Abatement Catalysis, 1-5.09.2014 Kraków" (A.Drzewiecka-Mastuszek, A.Kornas, D.Rutkowska-Żbik, M.Witko, eds.), IKiFP PAN, Kraków 2014, pp.161 [ISBN 978-83-60514-20-7]

3. "Seminarium Sprawozdawcze, Kraków 21.10.2014, Funkcjonalne nano i mikroczastki – synteza oraz zastosowania w innowacyjnych materiałach i technologiach (FUNANO), POIG.01.01.02-12-028/09" (Z.Adamczyk, M.Nattich-Rak, eds.), IKiFP PAN, Kraków 2014, pp. 100 [ISBN 978-83-60514-21-4]

Patents

1. I.Kumakiri, R.Brdesen P.Warszyński, P.Nowak, Y.Juan, C.Simon "Process and System for Removal of Organics in Liquids", Eurpean Patent EP 2326797 (2014)

Patent applications

1. T.Brunschwiler, B.Burg, J.Zuercher, R.Dixon, H.Kristiansen, P.Warszyński "Bridging Arrangement, Microelectronic Component and Method, for Manufacturing a Bridging arrangement", GB Patent Application, GB1419268.6 (29.10.2014)

2. P.Panek, R.P.Socha, K.Drabczyk, P.Zięba "Komponent pasty przewodzącej i pasta przewodząca zwłaszcza do wytwarzania elektrod ogniw słonecznych", zgłoszenie patentowe RP, P.409794 (14.10.2014)

2015

Monographs

1. R.Tadeusiewicz, M.Szaleniec "Leksykon sieci neuronowych", Wydawnictwo Fundacji 'Projekt Nauka', Wrocław 2015, pp. 134 [ISBN 987-83-63270-12-4]

Chapters in monographs

1. E.Bielańska, A.Drelinkiewicz, R.Dula, R.Grabowski, R.Kosydar, E.Lalik, T.Machej, L.Matachowski, P.Nowak, A.Pacuła, W.Rojek, E.Serwicka-Bahranowska, R.Tokarz-Sobieraj, M.Witko "Projektowanie katalizatorów do rekombinacji wodoru I tlenu pod kątem ich aktywności jako czynnika o krytycznym znaczeniu dla bezpieczeństwa pracy rekombinatorów w instalacjach nuklearnych", "Analiza procesów generacji wodoru w reaktorze jądrowym w trakcie normalnej eksploatacji i w sytuacjach awaryjnych z propozycjami działań na rzecz podniesienia poziomu bezpieczeństwa jądrowego" (A.Bojanowska-Czajka, ed.), Instytut Chemii i Techniki Jądrowej, Warszawa 2015, p.73-93 [ISBN 978-83-933935-5-8]

2. E.Brocławik, Z.Stasicka "Teorie wiązania chemicznego w kompleksach metali", in: "Podstawy i perspektywy chemii koordynacyjnej. T.1. Podstawy chemii koordynacyjnej" (Z.Stasicka, G.Stochel, eds.) Wydawnictwo UJ, Kraków 2014, p.151-194 [ISBN: 978-83-23337-73-7] – wydano w 2015

3. E.Brocławik, Z.Stasicka "Spektroskopia elektronowa", in: "Podstawy i perspektywy chemii koordynacyjnej. T.1. Podstawy chemii koordynacyjnej" (Z.Stasicka, G.Stochel, eds.) Wydawnictwo UJ, Kraków 2014, p.195-244 [ISBN: 978-83-23337-73-7] – wydano w 2015

4. A.Kornas, R.Grabowski, K.Samson, M.Ruggiero, A.Żelazny, M.Śliwa "Właściwości fizykochemiczne i katalityczne katalizatorów miedziowych w reakcji uwodornienia CO_2 w kierunku eteru dwumetylowego (DME)", in: "Badania i Rozwój Młodych Naukowców w Polsce - Nauki techniczne i inżynieryjne, Tom I", Wydawnictwo Młodzi Naukowcy, Poznań 2015, p.113 [ISBN 978-83-942083-7-0]

5. K.Pamin "Heteropolizwiązki jako katalizatory transformacji węglowodorów", in: "Elektrochemia stosowana" (B.Baś, M.Jakubowska, W.W.Kubiak, eds.), Wydawnictwo Naukowe Akapit, Kraków 2015, p.259-281 [ISBN 978-83-63663-58-2]

6. K.Pamin, S.Basąg, J.Połtowicz, W.W.Kubiak "Badanie właściwości katalitycznych i elektrochemicznych soli kobaltowych kwasu fosfowolframowego i fosfomolibdenowego w reakcji utleniania fenolu", in: "Elektrochemia stosowana" (B.Baś, M.Jakubowska, W.W.Kubiak, eds.), Wydawnictwo Naukowe Akapit, Kraków 2015, p. 283-290 [ISBN 978-83-63663-58-2]

7. D.Rutkowska-Żbik, R.Tokarz-Sobieraj, M.Witko "Understanding the Mechanism of Gas-to-Liquid Processes with an Aid of Quantum Chemistry Tools; Case Studies of the Shilov Reaction and Natural Gas Aromatization", in: "Small-Scale Gas to Liquid Fuel Synthesis" (ed. N.Kanellopoulos, ed.), CRC Press, Boca Raton 2015, p.401-428 [ISBN 9781466599383]

Articles in journals evaluated in Thomson Reuters Journal Citation Reports

1. K.Bahranowski, W.Włodarczyk, E.Wisła-Walsh, A.Gaweł, J.Matusik, A.Klimek, B.Gil, A.Michalik-Zym, R.Dula, R.P.Socha, E.M.Serwicka "[Ti,Zr]-pillared montmorillonite - A new quality with respect to Ti- and Zr-pillared clays", Microporous Mesoporous Mater., 202 (2015) 155-164

2. A.Barbasz, M.Oćwieja, J.Barbasz "Cytotoxic Activity of Highly Purified Silver Nanoparticles Sol Against Cells of Human Immune System", Appl. Biochem. Biotechnol., 176 (2015) 817-834

3. P.Batys, M.Nosek, M.Skoczek, P.Weroński "Synthesis and quantitative characterization of non-conductive colloidal particle multilayers", Electrochim. Acta, 164 (2015) 71-80

4. P.Batys, M.Nosek, P.Weroński "Structure analysis of layer-by-layer multilayer films of colloidal particles", Appl. Surf. Sci., 332 (2015) 318-327

5. M.Bonarowska, Z.Karpiński, R.Kosydar, T.Szumełda, A.Drelinkiewicz "Hydrodechlorination of CCl4 over carbon-supported palladium-gold catalysts prepared by the reverse 'water-in-oil' microemulsion method", Compt. Rend. Chim., 18 (2015) 1143-1151

6. P.Boroń, L.Chmielarz, J.Gurgul, K.Łątka, B.Gil, B.Marszałek, S.Dźwigaj "Influence of iron state and acidity of zeolites on the catalytic activity of FeHBEA, FeHZSM-5 and FeHMOR in SCR of NO with NH_3 and N_2O decomposition", Microporous Mesoporous Mater., 203 (2015) 73-85

7. T.Borowski, M.Quesne, M.Szaleniec "QM and QM/MM methods compared: case studies on reaction mechanisms of metalloenzymes", Adv. Protein Chem. Struct. Biol., 100 (2015) 187-224

8. Ł.Bratasz, M.Łukomski, A.Klisińska-Kopacz, W.Zawadzki, K.Dzierżęga, M.Bartosik, J.Sobczyk, F.J.Lennard, R.Kozłowski "Risk of climate-induced damage in historic textiles", Strain, 51 (2015) 78-88

9. A.Brzyska, P.Borowski, K.Woliński "Solvent effects on the nitrogen NMR chemical shifts in 1-methylazoles – a theoretical study", New J. Chem., 39 (2015) 9627-9640

10. K.Drabczyk, P.R.Socha, A.Skwarek "Copper deposition on screen printed electrical paths for solar cell application", Circuit World, 41 (2015) 98-101

11. A.Dudzik, W.Snoch, P.Borowiecki, J.Opalińska-Piskorz, M.Witko, J.Heider, M.Szaleniec "Asymmetric reduction of ketones and β-keto esters by (S)-1-phenylethanol dehydrogenase from denitrifying bacterium Aromatoleum aromaticum", Appl. Microbiol. Biotechnol., 99 (2015) 5055-5069

12. S.S.Dukhin, V.I.Kovalchuk, M.Lotfi, M.Krzan, K.Małysa, R.Miller "Dynamics of Rear Stagnant Cap Formation at the Surface of Rising Bubbles in Surfactant Solutions for Small Marangoni Number and Slow Sorption Kinetics", Adv. Colloid Interface Sci., 222 (2015) 260-274

13. M.Elżbieciak-Wodka, M.Kolasińska-Sojka, P.Nowak, P.Warszyński "Comparison of permeability of poly(allylamine hydrochloride)/ and poly(diallyldimethylammonium chloride)/poly(4-styrenesulfonate) multilayer films: linear vs. exponential growth", J. Electroanal. Chem., 738 (2015) 195-202

14. U.Filek, A.Kirpsza, A.Micek-Ilnicka, E.Lalik, A.Bielański "Ethanol conversion over cesium-doped mono- and bi-cationic aluminum and gallium $H_3PW_{12}O_40$ salts", J. Mol. Catal. A, 407 (2015) 152-162

15. J.Gao, YT.Zheng, Y.D.Tang, J.M.Jehng, R.Gryboś, J.Handzlik, I.E.Wachs, S.G.Podkolzin "Spectroscopic and Computational Study of Cr Oxide Structures and Their Anchoring Sites on ZSM-5 Zeolites", ACS Catal., 5 (2015) 3078-3092

16. M.Grzesiak-Nowak, G.Appleby, W.Łasocha "Powder Diffraction and Synchrotron Radiation, a Powerful Tool in the Investigation of New Compounds: CdBr2(3-fluoroaniline)2 and CdBr2(4-fluoroaniline)2", X-Ray Spectr., 44 (2015) 398-403

17. K.E.Hnida, S.Baessler, L.Akinsinde, J.Gooth, K.Nielsch, R.P.Socha, A.Laszcz, A.Czerwiński, G.D.Sulka "Tuning the polarity of charge transport in InSb nanowires via heat treatment", Nanotechnology, 26 (2015) 285701

18. J.M.del Hoyo-Melendez, P.Świt, M.Matosz, M.Woźniak, A.Klisińska-Kopacz, Ł.Bratasz "Micro-XRF analysis of silver coins from medieval Poland", Nucl. Instrum. Methods Phys. Res. B, 349 (2015) 6-16

19. K.Hupert-Kocurek, D.Wojcieszyńska, U.Guzik, T.Borowski, "A single amino acid substitution within catalitically nonactive N-terminal domain of catechol 2,3-dioxygenase (C23O) increasees enzyme activity towards 4-chlorocatechol", J. Mol. Catal. B, 122 (2015) 64-71

20. D.Jantas, M.Piotrowski, W.Lasoń "An Involvement of PI3-K/Akt Activation and Inhibition of AIF Translocation in Neuroprotective Effects of Undecylenic Acid (UDA) Against Pro-Apoptotic Factors-Induced Cell Death in Human Neuroblastoma SH-SY5Y Cells", J. Cellular Biochem, 116 (2015) 2882-2895

21. A.Jeziorna, K.Stopczyk, E.Skorupska, K.Luberda-Durnaś, M.Oszajca, W.Łasocha, M.Górecki, J.Frelek, M.J.Potrzebowski "Cyclic Dipeptides as Building Units of Nano- and Microdevices: Synthesis, Properties, and Structural Studies", Crystal Growth & Design, 15 (2015) 5138-5148

22. M.Kopeć, K.Szczepanowicz, G.Mordarski, K.Podgórna, R.P.Socha, P.Nowak, P.Warszyński, T.Hack "Self-healing epoxy coatings loaded with inhibitor-containing polyelectrolyte nanocapsules", Progr. Organic Coatings, 84 (2015) 97-106

23. K.P.Korona, T.Korona, D.Rutkowska-Żbik, S.Grankowska-Ciechanowicz, A.Iwan, M.Kamińska "Polyazomethine as a component of solar cells - theoretical and optical study", J. Phys. Chem. Solid., 86 (2015) 186-193

24. D.Kosior, J.Zawała, A.Niecikowska, K.Małysa "Influence of non-ionic and ionic surfactants on kinetics of the bubble attachment to hydrophilic and hydrophobic solids", Colloid Surf. A, 470 (2015) 333-341

25. M.Krośnicki, M.Strojecki, T.Urbańczyk, A.Pashov, J.Koperski "Interatomic potentials of the heavy van der Waals dimer Hg_2: A “test-bed” for theory-to-experiment agreement", Phys. Reports, 591 (2015) 1-31

26. T.Kruk, K.Szczepanowicz, J.Stefańska, R.P.Socha, P.Warszyński "Synthesis and antimicrobial activity of monodisperse copper nanoparticles", Colloid Surf. B, 128 (2015) 17-22

27. M.Krzan, E.Jarek, P.Warszyński, E.Rogalska "Effect of products of PLA2 catalyzed hydrolysis of DLPC on motion of rising bubbles", Colloid Surf. B, 128 (2015) 261-267

28. L.Krzemień, M.Łukomski, A.Kijowska, B.Mierzejewska "Combining Digital Speckle Pattern Interferometry with Shearography in a New Instrument to Characterize Surface Delamination in Museum Artefacts", J. Cult. Herit, 16 (2015) 544-550

29. L.Krzemień, M.Strojecki, S.Wroński, J.Tarasiuk, M.Łukomski "Dynamic response of earlywood and latewood within annual growth ring structure of Scots pine subjected to changing relative humidity", Holzforschung, 69 (2015) 555–561

30. K.Kubiak, Z.Adamczyk, M.Oćwieja "Kinetics of Silver Nanoparticle Deposition at PAH Mono layers: Reference QCM Results", Langmuir, 31 (2015) 2988-2996

31. K.Kubiak, Z.Adamczyk, M.Wasilewska "Mechanisms of fibrinogen adsorption at the silica substrate determined by QCM-D measurements", J. Colloid Interface Sci., 457 (2015) 378-387

32. K.Kubiak-Ossowska, M.Ćwięka, A.Kaczyńska, B.Jachimska, P.Mulheran, "Lysozyme adsorption at a silica surface using simulation and experiment: effects of pH on protein layer structure", Phys. Chem. Chem. Phys., 17 (2015) 24070-24077

33. M.Kujda, Z.Adamczyk, M.Cieśla, M.Adamczyk "High density monolayers of plasmid protein on latex particles: experiments and theoretical modeling", J. Stat. Mechanic - Theory Exp., (2015) P04003

34. M.Kujda, Z.Adamczyk, M.Morga, K.Sofinska "Recombinant albumin adsorption on mica studied by AFM and streaming potential measurements", Colloid Surf. B, 127 (2015) 192-199

35. M.Kujda, Z.Adamczyk, Sz.Zapotoczny, E.Kowalska "Electrokinetic characteristics of HSA dimer and its monolayers at mica", Colloids Surf. B, 136 (2015) 1207–1214

36. M.Kujda, M.Oćwieja, Z.Adamczyk, O.Bocheńska, G.Braś, A.Kozik, E.Bielańska, J.Barbasz "Charge Stabilized Silver Nanoparticles Applied as Antibacterial Agents", J. Nanosci. Nanotechnol., 15 (2015) 3574-3583

37. E.Lalik, A.Drelinkiewicz, R.Kosydar, W.Rojek , T.Machej, J.Gurgul, T.Szumełda, M.Kołodziej, E.Bielańska "Activity and deactivation of Pd/Al2O3 catalysts in hydrogen and oxygen recombination reaction; a role of alkali (Li, Cs) dopant", Int J. Hydrogen Energy, 40 (2015) 16127-16136

38. E.Lalik, A.Drelinkiewicz, R.Kosydar, T.Szumełda, E.Bielańska, D.Groszek, A.Iannetelli, M.Groszek "Oscillatory behavior and anomalous heat evolution in recombination of H2 and O2 on Pd−based catalyst", Ind Eng. Chem. Res., 54 (2015) 7047-7058

39. E.Lalik, R.Kosydar, R.Tokarz-Sobieraj, M.Witko, T.Szumełda, M.Kołodziej, W.Rojek, T.Machej, E.Bielańska, A.Drelinkiewicz "Humidity induced deactivation of Al_2O_3 and SiO_2 supported Pd, Pt, Pd-Pt catalysts in H_2+O_2 recombination reaction: the catalytic, microcalorimetric and DFT studies", Appl. Catal. A, 501 (2015) 27-40

40. J.Li, S.L.Yoong, W.J.Goh, B.Czarny, Z.Yang, K.Poddar, M.M.Dykas, A.Patra, T.Venkatesan, T.Pańczyk, C.Lee, G.Pastorin "In vitro controlled release of cisplatin from gold-carbon nanobottles via cleavable linkages", Int. J. Nanomed., 10 (2015) 7425-7441

41. J.I.Loch, P.Bonarek, A.Polit, S.Świątek, M.Czub, M.Ludwikowska, K.Lewiński "Conformational variability of goat β-lactoglobulin: Crystallographic and thermodynamic studies", Int. J. Biol. Macromol., 72 (2015) 1283-1291

42. K.Luberda-Durnaś, W.Łasocha "Formation of ZnSe and ZnS Nanostructures from Hybrid Organic-inorganic Precursors of the Type ZnSe(m-xylylenediamine)1/2 and ZnS(1,3-diaminopropane)1/2", Cryst. Res. Technol., 50 (2015) 716-723

43. D.Majda, W.Makowski, M.Mańko, K.Mlekodaj, A.Michalik-Zym, B.D.Napruszewska, M.Zimowska, E.M.Serwicka "Porosity characterization of SBA-15 silicas with thermoporosimetry of water and n-alkanes – The effect of the probe liquid nature", Microporous Mesoporous Mater., 201 (2015) 141-150

44. A.Marczewska, M.Środa, M.Nocuń, B.Sulikowski "Lead-gallium glasses and glass-ceramics doped with SiO2 for near infrared transmittance", Optical Mater., 45 (2015) 121-130

45. A.Michalik-Zym, R.Dula, D.Duraczyńska, J.Kryściak-Czerwenka, T.Machej, R.P.Socha, W.Wlodarczyk, A.Gaweł, J.Matusik, K.Bahranowski, E.Wisła-Walsh, EL.Lityńska-Dobrzyńska, E.M.Serwicka "Active, selective and robust Pd and/or Cr catalysts supported on Ti-, Zr- or [Ti,Zr]-pillared montmorillonites for destruction of chlorinated volatile organic compounds", Appl. Catal. B, 174 (2015) 293-307

46. A.Michna, Z.Adamczyk, P.Batys "Mapping single macromolecule chains using the colloid deposition method: PDADMAC on mica", J. Colloid Interface Sci., 450 (2015) 82-90

47. M.Morga, Z.Adamczyk, S.Goedrich, M.Oćwieja, G.Papastavrou "Monolayers of poly-L-lysine on mica - Electrokinetic characteristics", J. Colloid Interface Sci., 456 (2015) 116-124

48. M.Nattich-Rak, Z.Adamczyk, M;.Wasilewska, M.Sadowska"Revealing fibrinogen monolayer conformations at different pHs: Electrokinetic and colloid deposition studies", J. Colloid Interface Sci., 449 (2015) 62-71

49. J.Nowicki, Ł.Mokrzycki, B.Sulikowski "Synthesis of Novel Perfluoroalkylglucosides on Zeolite and Non-Zeolite Catalysts", Molecules, 20 (2015) 6140-6152

50. M.Oćwieja, Z.Adamczyk, M.Morga "Adsorption of tannic acid on polyelectrolyte monolayers determined in situ by streaming potential measurements", J. Colloid Interface Sci., 438 (205) 249-258

51. M.Oćwieja, Z.Adamczyk, M.Morga "pH-Controlled desorption of silver nanoparticles from monolayers deposited on PAH-covered mica", J. Nanoparticle Res., 17 (2015) 235

52. M.Oćwieja, Z.Adamczyk, M.Morga, K.Kubiak "Influence of supporting polyelectrolyte layers on the coverage and stability of silver nanoparticle coatings", J. Colloid Interface Sci., 445 (2015) 205-212

53. M.Oćwieja, Z.Adamczyk, M.Morga, K.Kubiak "Silver particle monolayers - formation, stability, applications", Adv. Colloid Interface Sci., 222 (2015) 530-563

54. M.Oćwieja, A.Popov, Z.Adamczyk, M.Morga, A.Ramanaviciene, A.Ramanavicius "Deposition of silver nanoparticles from suspensions containing tannic acid", Colloid Surf. A, 477 (2015) 70-76

55. L.R.Offermann, M.Bublin, M.L.Perdue, S.Pfeifer, P.Dubiela, T.Borowski, M.Chruszcz, K.Hoffmann-Sommergruber "Structure and functional characterization of the hazelnut allergen Cor a 8", J. Agric. Food Chem., 63 (2015) 9150-9158

56. A.Olejniczak, M.Lezańska, A.Pacuła, P.Nowak, J.Wloch, J.P.Łukaszewicz "Nitrogen-containing mesoporous carbons with high capacitive properties derived from a gelatin biomolecule", Carbon, 91 (2015) 200-214

57. Ł.Orzeł, B.Szmyd, D.Rutkowska-Żbik, L.Fiedor, R.van Eldik, G.Stochel "Fine tuning of copper(II)–chlorophyll interactions in organic media. Metalation versus oxidation of the macrocycle", Dalton Trans., 44 (2015) 6012-6022

58. M.Oszajca, W.Nitek, A.Rafalska-Łasocha, W.Łasocha "Crystal Structures of 1,8-bis(dimethylamino)naphthalene (DMAN) and Dicarboxylic Acids Complexes Determined from Single-crystal and Powder Diffraction Data", Cryst. Res. Technol., 50 (2015) 781-790

59. A.Pacuła, P.Nowak, W.Makowski, R.P.Socha "The influence of layered double hydroxide composition on the morphology, porosity and capacitive properties of nitrogen-doped carbon materials prepared via chemical vapor deposition", Microporous Mesoporous Mater., 201 (2015) 1-9

60. A.Pacuła, K.Pamin, J.Kryściak-Czerwenka, Z.Olejniczak, B.Gil, E.Bielańska, R.Dula, E.M.Serwicka, A.Drelinkiewicz "Physicochemical and catalytic properties of hybrid catalysts derived from 12-molybdophosphoric acid and montmorillonites", Appl. Catal. A, 498 (2015) 192-204

61. P.Paluch, T.Pawlak, M.Oszajca, W.Łasocha, M.J.Potrzebowski "Fine Refinement of Solid State Structure of Racemic Form of Phospho-tyrosine Employing NMR Crystallography Approach", Solid State Nucl. Magn. Res., 65 (2015) 2-11

62. K.Pamin, J.Połtowicz, M.Prończuk, S.Basąg, J.Maciejewska, J.Kryściak-Czerwenka, R.Tokarz-Sobieraj "Hydroxylation of phenol by hydrogen peroxide catalyzed byheteropoly compounds in presence of glycerol as green solvent", Catal. Today, 257 (2015) 80-85

63. K.Pamin, M.Prończuk, S.Basąg, W.Kubiak, Z.Sojka, J.Połtowicz "A new hybrid porphyrin-heteropolyacid material: synthesis, characterization and investigation as catalyst in Baeyer-Villiger oxidation. Synergistic effect", Inorg. Chem. Commun., 59 (2015) 13-16

64. T.Pańczyk, Ł.Kończak, S.Zapotoczny, M.Szabelski, M.Nowakowska "Molecular dynamics simulations of proton transverse relaxation times in suspension of magnetic nanoparticles", J. Colloid Interface Sci., 437 (2015) 187-196

65. T.Pańczyk, P.Wolski, Ł.Konczak, J.Narkiewicz-Michalek "Sidewall Functionalization of Carbon Nanotubes as a Method of Controlling Structural Transformations of the Magnetically Triggered Nanocontainer: A Molecular Dynamics Study", J. Phys. Chem. C, 119 (2015) 8373-8381

66. E.Pięta, E.Proniewicz, B.Boduszek, T.K.Olszewski, M.Nattich-Rak, Y.Kim "Probing the Ag, Au, and Cu electrode/pyridine-α-hydroxymethyl biphenyl phosphine oxide isomer interface with SERS", Appl. Surf. Sci., 335 (2015) 167-183

67. M.Piotrowski, D.Jantas, K.Szczepanowicz, S.Łukasiewicz, W.Lasoń, P.Warszyński "Polyelectrolyte-coated nanocapsules containing undecylenic acid: synthesis, biocompatibility and neuroprotective properties", Colloids Surf. B, 135 (2015) 8-17

68. A.Płazińska, W.Płaziński, K.Jóźwiak "Agonist binding by β-2-adrenergic receptor: an influence of the receptor conformation on the ligand association/dissociation characteristics", Eur. Biophys. J., 44 (2015) 149-63

69. W.Płazinski, A.Płazińska, M.Drach "The water-catalyzed mechanism of the ring-opening reaction of glucose", Phys. Chem. Chem. Phys., 17 (2015) 21622-21629

70. W.Płaziński, M.Drach "Binding of bivalent metal cations by α-L-guluronate: insights from the DFT-MD simulations", New J. Chem., 39 (2015) 3987-3994

71. W.Płaziński, M.Drach "The influence of the hexopyranose ring geometry on the conformation of glycosidic linkages investigated using molecular dynamics simulations", Carbohydr. Res., 415 (2015) 17-27

72. W.Płaziński, M.Drach "Kinetic characteristics of conformational changes in the hexopyranose rings", Carbohydr. Res., 416 (2015) 41-50

73. A.Rafalska-Łasocha, M.Grzesiak-Nowak, D.Sarkowicz, W.Łasocha "The Use of XRPD for the Investigation of Historic Pigments and Painting Materials in Works by Henryk Siemiradzki", J. Anal. Atomic Spectr, 30 (2015) 751-758

74. F.J.M.Ruiz-Cabello, M.Moazzami-Gudarzi, M.Elżbieciak-Wodka, P.Maroni, C.Labbez, M.Borkovec, G.Trefalt "Long-Ranged and Soft Interactions between Charged Colloidal Particles Induced by Multivalent Coions", Soft Matter, 11 (2015) 1562-1571

75. K.Samson, A.Żelazny, R.Grabowski, M.Ruggiero-Mikołajczyk, M.Śliwa, K.Pamin, A.Kornas, M.Lachowska "Influence of the carrier and composition of active phase on physicochemical and catalytic properties of CuAg/ oxide catalysts for selective hydrogenolysis of glycerol"; Res. Chem. Intermed, 41 (2015) 9295-9306

76. N.Spiridis, M.Zając, P.Piekarz, A.I.Chumakov, K.Freindl, J.Goniakowski, A.Kozioł-Rachwał, K.Parliński, M.Ślęzak, T.Ślęzak, U.D.Wdowik, D.Wilgocka-Ślęzak, J.Korecki "Phonons in Ultrathin Oxide Films: 2D to 3D Transition in FeO on Pt(111)", Phys. Rev. Lett., 115 (2015) 186102

77. V.Starinieri, D.C.Hughes, D.Wilk "Influence of substrate and sand characteristics on Roman cement mortar performance", Constr. Building Mater., 91 (2015) 274-287

78. Z.Starowicz, M.Lipiński, R.P.Socha, K.Berent, G.Kulesza, P.Ozga "Photochemical silver nanoparticles deposition on sol-gel TiO_2 for plasmonic properties utilization", J. Sol-Gel Sci. Technol., 73 (2015) 563-571

79. M.Stec, R.Szatanek, M.Baj-Krzyworzeka, J.Baran, M.Zembala, J.Barbasz, A.Waligórska, J.W.Dobrucki, B.Mytar, A.Szczepanik, M.Siedlar, G.Drabik, B.Urbanowicz, M.Zembala "Interactions of tumour-derived micro (nano) vesicles with human gastric cancer cells", J. Translational Medicine, 13 (2015) 376

80. M.Stec, M.Baj-Krzyworzeka, J.Baran, K.Węglarczyk, M.Zembala, J.Barbasz, A.Szczepanik, M.Zembala "Isolation and characterization of circulating micro (nano) vesicles in the plasma of colorectal cancer patients and their interactions with tumor cells", Oncology Reports, 34 (2015) 2768-2775

81. B.Sulikowski "Solid-state 29Si and 27Al NMR studies of natural mesolite", Microporous Mesoporous Mater., 206 (2015) 144-149

82. K.Szczepanowicz, U.Bazylińska, J.Pietkiewicz, L.Szyk-Warszyńska, K.A.Wilk, P.Warszyński "Biocompatible long-sustained release oil-core polyelectrolyte nanocarriers: From controlling physical state and stability to biological impact", Adv. Colloid Interface Sci., 222 (2015) 678-691

83. K.Szczepanowicz, P.Warszyński "Magnetically responsive liquid core polyelectrolyte nanocapsules", J. Microencapsulation, 32 (2015) 123-128

84. M.Ślęzak, T.Giela, D.Wilgocka-Ślęzak, N.Spiridis, T.Ślęzak, M.Zając, A.Kozioł-Rachwał, R.P.Socha, M.Stankiewicz, P.Warnicke, N.Pilet, J.Raabe, C.Quitmann, J.Korecki "Prospects of X-ray photoemission electron microscopy at the first beamline of the Polish synchrotron facility 'Solaris'", X-Ray Spectr., 44 (2015) 317-322

85. M.Tatko, M.Mosiałek, M.Dudek, P.Nowak, A.Kędra, E.Bielańska "Composite cathode materials $Sm_{0.5}Sr_{0.5}CoO_3$-$La_{0.6}Sr_{0.4}FeO_3$ for solid oxide fuel cells", Solid State Ionics, 271 (2015) 103-108

86. R.Tokarz-Sobieraj, R.Gryboś, U.Filek, A.Micek-Ilnicka, P.Niemiec, A.Kirpsza, M.Witko "Generation of acidic sites in Al., Ga, In salts of molybdenum and tungsten Keggin-type heteropolyacids. DFT modeling and catalytic tests", Catal. Today, 257 (2015) 72-79

87. D.Wiśnios, A.Kiejna, J.Korecki "First-principles study of the adsorption of MgO molecules on a clean Fe(001) surface", Phys. Rev. B, 92 (2015) 5425-5425

88. M.Włodek, M.Kolasinska-Sojka, M.Szuwarzyński, S.Zapotoczny, P.Warszyński "Formation and characterization of (1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine)/ (1-palmitoyl-2-oleoyl-sn-glycero-3-phospho-l-serine) supported lipid bilayers on polyelectrolyte multilayer films", Thin Solid Films 592 (2015) 1–7

89. M.Włodek, M.Szuwarzyński, M.Kolasinska-Sojka "Effect of supporting polyelectrolyte multilayers and deposition conditions on the formation of 1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine/-palmitoyl-2-oleoyl-sn-glycero-3-phosphoethanolamine lipid bilayers", Langmuir, 31(2015) 10484-10492

90. M.Wojnicki, M.Luty-Błocho, RP.Socha, K.Mech, Z.Pędzich, K.Fitzner, E.Rudnik "Kinetic studies of sorption and reduction of gold(III) chloride complex ions on activated carbon Norit ROX 0.8", J. Ind. Eng. Chem., 29 (2015) 289-297

91. X.Wu, P.Sten, S.Engblom, P.Nowak, P.Österholm, M.Dopson "Impact of mitigation strategies on acid sulfate soil chemistry and microbial community", Sci. Total Environ., 526 (2015) 215-221

92. J.Zawała, D.Kosior, K.Małysa "Formation and influence of the dynamic adsorption layer on kinetics of the rising bubble collisions with solution/gas and solution/solid interfaces", Adv. Colloid Interface Sci., 222 (2015) 765-778

93. J.Zawała, K.Szczepanowicz, P.Warszyński "Theoretical and experimental studies of drop size in membrane emulsification - Single pore studies of hydrodynamic detachment of droplets", Colloid Surf. A, 470 (2015) 297-305

94. W.Zieliński, K.A.Wilk, G.Para, E.Jarek, K.Ciszewski, J.PalusP.Warszyński "Synthesis, surface activity and antielectrostatic properties of new soft dichain cationic surfactants", Colloid Surf. A, 480 (2015) 63-70

Articles in other journals and books

1. A.Bratek-Skicki, P.Żeliszewska, Z.Adamczyk "Human Fibrinogen Monolayers under Aqueous Conditions", FEBS J., 282 (2015) (Suppl. 1) 335-336

2. M.Ćwięka, K.Kubiak-Ossowska, P.Mulheran, B.Jachimska "Experimental and Theoretical Methods as a Tool for the Interpretation of Lysozyme Immobilization at a Silica Surface", FEBS J., 282 (Suppl. 1) (2015)

3. T.Czeppe, E.Korznikova, P.Ozga, L.Lityńska-Dobrzyńska, R.P.Socha "Application of the high pressure torsion supported by mechanical alloying for the metal-graphene composites preparation", Mechanik, (02) (2015) 147-157, DOI: 10.17814/mechanik.2015.2.84

4. A.Kędra, R.P.Socha, L.Szyk-Warszyńska, M.Lipiński, K.Łaba, P.Warszyński "Wykorzystanie efektu plazmonowego na cząstkach metali do wzbudzenia emisji w konwerterach światła", Elektronika, 8 (2015) 25-26

5. E.Lalik, M.Kołodziej, R.Kosydar, T.Szumełda, A.Drelinkiewicz "Hydrogen and oxygen reaction on SiO2 and MoO_3 supported Pd-Pt catalysts", Recycl. Catal., 2 (2015) 27-35

6. M.Łapczyńska, M.Piotrowski, D.Jantas, P.Warszyński, K.Szczepanowicz "Synthesis of the PCL nanoparticles containing neuroprotectants as efficient (brain) drug delivery systems", FEBS J., 282 (Suppl. 1) (2015) 182

7. A.Maciej,W.Simka, T.Gorewoda, M.Kubiczek, R.Socha, G.Dercz "Badania składu chemicznego i fazowego anodowo utlenianych powłok stopowych Zn-Ni", Ochrona przed Korozją, 58 (2015) 180-184

8. M.Mosiałek, M.Krzan, M.Tatko, E.Bielańska, A.Kędra, A.Michna, E.Czerlunczakiewicz "Composite cathode materials for solid oxide fuel cells", Materiały Ceramiczne / Ceramic Materials, 67 (2015) 220-221

9. P.Nowak, M.Mosiałek, G.Nawrat "Corrosion of magnesium and its alloys - new observations and ideas", Ochrona przed korozją, 58 (2015) 371-377

10. K.Podgorna, K Szczepanowicz, M Piotrowski, P Warszyński „Magnetically responsive polyelectrolyte nanocapsules as carriers of therapeutic compounds", FEBS J., 282 (Suppl. 1) (2015) 264

11. A.Rugor, A.Bojarski, M.Szaleniec "A unique bacterial molybdoenzyme - from structural insights to industrial application", PAS Annual Report, (2015) 46-48 [ISSN 1640-3754]

12. D.Rutkowska-Żbik "Project NanoEIS: Nanotechnology Education for Industry and Society", EC2E2N NewsLetter, 16(1) (2015) pp.6 [ISSN 2309-5911]

13. M.Ryś, M.Szaleniec, A.Skoczowski, I.Stawoska, A.Janeczko "FT-Raman spectroscopy as a tool in evaluation the response of plants to drought stress", Open Chem., 13 (2015) 1091-1100

14. M.Sadowska, M.Nattich-Rak, Z.Adamczyk, M.Wasilewska "Revealing human Fb monolayer conformations at different pHs", FEBS J., 282 (Suppl. 1) (2015) 208

15. M.Sadowska, M.Nattich-Rak, Z.Adamczyk "Mechanism of nanoparticle deposition on polystyrene latex particles revealed by electrokinetic, AFM and SEM measurements", FEBS J., 282 (Suppl. 1) (2015) 207-208

16. K.Sofińska, Z.Adamczyk "Quantitative adsorption of IgG on colloidal particles as a new method for preparation of low-cost immunoassays", FEBS J., 282 (Suppl. 1) (2015) 350

17. K.Szczepanowicz, A.Karabasz, M.Bzowska, P.Warszyński "Polyelectrolyte nanocapsules as a drug carrier for targeted cancer therapy", FEBS J., 282 (Suppl. 1) (2015) 262

18. K.Tokarczyk, B.Jachimska "Understanding the mechanism of dendrimers adsorption onto oppositely charged surfaces using surface plasmon resonance and quartz crystal microbalance techniques", FEBS J., 282 (2015) (Suppl. 1) 245

19. M.Wołoszyn, E.M.Nosek, J.Stępiński, A.Rafalska-Łasocha, W.Łasocha, E.Bielańska "The seals from Czermno (Cherven Townes, Eastern Poland) - chemical analysis and metallurgical examination", Archeologia Polski, 60 (2015) 123-152

20. J.Yu, K.Zurcher, G.Schlottig, M.Baum, M.M.Visser Taklo, B.Wunderle, P.Warszyński, T.Brunschwiler "Nanoparticle assembly and sintering towards all-copper flip chip interconnects", IEEE Conference Publications 2015 IEEE 65th Electronic Components and Technology Conf. (IEEE-ECTC), San Diego 2015, p.1115-1121

21. J.Zawała, P.Zawała, K.Małysa "On mechanism of the bubble bouncing from hydrophilic and hydrophobicsurfaces", Annales UMCS, sectio AA, Chemia,70 (2015) 15-27

22. J.Zurcher, C.Xi, B.R.Burg, S.Zimmermann, T.Brunschwiler, H.Guo, A.R.Studart, G.Potasiewicz, P.Warszyński "Enhanced thermal underfills by bridging nanoparticle assemblies in percolating microparticle beds", IEEE Conference Publications 2015 IEEE 15th Int. Conf. on Nanotechnology (IEEE-NANO), Rome 2015, p.577-580

23. P.Żeliszewska, A.Bratek-Skicki, Z.Adamczyk "Revealing adsorption mechanism of human fibrinogen on positively charge latex", FEBS J., 282 (Suppl 1) (2015) 330

Books issued by the Institute [with ISBN number]

1. "XLVII Ogólnopolskie Kolokwium Katalityczne, XVLII Polish Annual Conference on Catalysis, 16-18.03.2015, Kraków" (U.Filek, B.Sulikowski, eds.), IKiFP PAN, Kraków, 2015, pp. 347 [ISBN 978-83-60514-22-1]

2. "4th International Symposium on Surface Imaging/Spectroscopy at the Solid/Liquid Interface, September 2nd-4th, 2015, Krakow, Poland", (G.Mordarski, ed.), IKiFP PAN Kraków, 2015, pp.184 [ISBN 978-83-60514-23-8]

Patents

1. I.Kumakiri, R.Brdesen P.Warszyński, P.Nowak, Y.Juan, C.Simon "Process and System for Removal of Organics in Liquids", Spanish Patent ES 2531025 (2015)

Patent applications

1. M.Oćwieja., Z.Adamczyk "Sposób wytwarzania stabilnych suspensji nanocząstek srebra o dodatnim ładunku powierzchniowym", zgłoszenie patentowe RP P.415545 (2015)

2. M.Oćwieja., Z.Adamczyk "Sposób wytwarzania stabilnych suspensji nanocząstek srebra o dodatnim ładunku powierzchniowym", zgłoszenie patentowe RP P.415546 (2015)

3. M.Oćwieja., Z.Adamczyk "Sposób wytwarzania stabilnych suspensji nanocząstek srebra o dodatnim ładunku powierzchniowym", zgłoszenie patentowe RP P.415547 (2015)

4. K.Pamin, J.Połtowicz "Sposób utleniania fenolu do katecholu i hydrochinonu", zgłoszenie patentowe RP P.415063 (2015)

5. A.Rugor, M.Szaleniec, T.Janeczko, M.Dymarska, E.Kostrzewa-Susłow "Sposób wytwarzania 17a-metyloandrost-1,4-dien-3-on-17-olu", zgłoszenie patentowe RP P.413208 (2015)

6. A.Rugor, M.Szaleniec, T.Janeczko, M.Dymarska, E.Kostrzewa-Susłow "Sposób wytwarzania octanu androst-1,4,6-trien-3-on-17-olu", zgłoszenie patentowe RP P.413207 (2015)

7. A.Rugor, M.Szaleniec, T.Janeczko, M.Dymarska, E.Kostrzewa-Susłow "Sposób wytwarzania propionianu androst-1,4-dien-3-on-17-olu", zgłoszenie patentowe RP P.413209 (2015)

8. A.Rugor, M.Szaleniec, J.Staroń "Sposób otrzymywania 25-hydroksylowanej witaminy D3 (kalcyfediolu)", zgłoszenie patentowe RP P.415451 (2015)

9. M.Szaleniec, A.Rugor, A.Dudzik, M.Tataruch, K.Szymańska, A.Jarzębski "Sposób otrzymywania 25-hydroksylowanych pochodnych sterolowych, w tym 25-hydroksy-7-dehydrocholesterolu", zgłoszenie patentowe RP P.411750 (2015)

2016

Chapters in monographs

1. M.Bonarowska, Z.Karpiński, R.Kosydar, T.Szumełda, A.Drelinkiewicz, J.Szlachetko, D.L.A.Fernandes, J.Sa "Hydrodechlorination Using Pd–Au Nanoparticles to Convert Chloro-Containing Compounds to Useful Chemicals", in: "Reference Module in Materials Science and Materials Engineering 2016" (S.Haasmi, ed.), Elsevier 2016, pp.1-15 [ISBN 978-0-12-803581-8]

2. M.Góra, Z.Adamczyk, M.Nattich-Rak, B.Kozik, K.Jamroży, D.Dronka-Góra "Wpływ soli nieorganicznych i środków powierzchniowo czynnych na proces wstępnej hydrolizy celulozy i materiałów lignocelulozowych", in: "Biorafineryjne wytwarzanie paliw alternatywnych – uwarunkowania procesowe" (M.K.Łuczyński, J.Gołaszewski, eds.), Wydawnictwo UWM, Olsztyn 2015, pp.37-54 [ISBN 978-83-8100-036-9]

3. A.Kupczak, L.Krzemień, A.Sadłowska-Sałęga, J.Radoń, R.Kozłowski "Modelling impact of collections on indoor climate and energy consumption in libraries and archives", in: "Energy Efficiency and Comfort in Historic Buildings" (M.de Bouw, S.Dubois, L.Dekeyser, Y.Vanhellemont, ed.), Flanders Heritage Agency, Brussels 2016, pp.112-118

4. I.Malsch, D.Rutkowska-Żbik, A.Duschl, M.Himly, T.Zadrozny, C.Kiparissides, O.Kammona, M.Talesnik, Y.Rothschild, D.Rosenberg, B.Szafran, P.Queipo Rodriguez, I.Lynch "Nanotechnology educational gaps for industry and society", in: "Managing Risk in Nanotechnology: Topics in Governance, Assurance and Transfer" (M.Mullins, F.Murphy, E.M.McAlea, eds.), Springer, Dordrecht 2016, pp.93-115 [ISBN 978-3-319-32390-9]

Articles in journals evaluated in Thomson Reuters Journal Citation Reports

1. Z.Adamczyk, M.Oćwieja, H.Mrowiec, S.Walas, D.Lupa "Oxidative dissolution of silver nanoparticles: A new theoretical approach", J. Colloid Interface Sci., 469 (2016) 355-364

2. J.Adamski, J.Kochana, P.Nowak, A.Parczewski "On the electrochemical biosensing of phenolic compounds in wines", J. Food Comp. Anal., 46 (2016) 1-6

3. D.J.Babilas, E.Urbańczyk, M.M.Sowa, A.Maciej, D.M.Korotin, I.S.Zhidkov, M.Basiaga, M.Krok-Borkowicz, L.Szyk-Warszyńska, E.Pamuła, E.Z.Kurmaev, S.O.Cholakh, W.Simka "On the electropolishing and anodic oxidation of Ti-15Mo allo", Electrochim. Acta, 205 (2016) 256-265

4. A.Barbasz, B.Kreczmer, M.Oćwieja "Effects of exposure of callus cells of two wheat varieties to silver nanoparticles and silver salt ($AgNO_3$)", Acta Physiologiae Plantarum, 38, (2016) 76

5. A.Barbasz, M.Oćwieja "Gold nanoparticles and ions - friends or foes? As they are seen by human cells U-937 and HL-60", J. Exp. Nanosci., 11 (2016) 564-580

6. P.Batys, P.Weroński, M.Nosek "Wet formation and structural characterization of quasi-hexagonal monolayers", J. Colloid Interface Sci., 461 (2016) 211-214

7. P.Batys, P.Weroński, M.Nosek, M.Skoczek "Effective diffusivity of colloidal particle multilayers", Colloids Surf. A, 510 (2016) 176-182

8. P.Borowiecki, D.Paprocki, A.Dudzik, J.Plenkiewicz "Chemoenzymatic Synthesis of Proxyphylline Enantiomers", J. Org. Chem., 81 (2016) 380-395

9. A.Bratek-Skicki, P.Żeliszewska, J.M.Ruso "Fibrinogen: journey into biotechnology", Soft Matter, 12 (2016) 8639-8653

10. K.Brylewska, K.A.Tarach, W.Mozgawa, Z.Olejniczak, U.Filek, K.Góra-Marek "Modification of ferrierite through post-synthesis treatments. Acidic and catalytic properties", J. Mol. Struct., 1126 (2016) 147-153

11. L.Cristofolini, K.Szczepanowicz, D.Orsi, T.Rimoldi, F.Albertini, P.Warszyński "Hybrid polyelectrolyte/Fe_3O_4 nanocapsules for hyperthermia applications", ACS Appl. Mater. Interfaces, 8 (2016) 25043-25050

12. K.Cvejin, M.Śliwa, L.Manjakkal, J.Kulawik, G.Stojanović, D.Szwagierczak "Impedancemetric NO sensor based on YSZ/perovskite neodymium cobaltite operating at high temperatures", Sensors Actuators B., 228 (2016) 612-624

13. W.Dec, M.Mosiałek, R.P.Socha, M.Jaworska-Kik, M.Woszczak, W.Simka, J.Michalska "The effect of sulphate-reducing bacteria biofilm on passivity and development of pitting on 2205 duplex stainless steel", Electrochim. Acta, 212 (2016) 225-236

14. R.Dębek, M.Motak, D.Duraczyńska, F.Launay, M.E.Galvez, T.Grzybek, P.Da Costa "Methane dry reforming over hydrotalcite-derived Ni–Mg–Al mixed oxides: the influence of Ni content on catalytic activity, selectivity and stability", Catal. Sci. Technol., 6 (2016) 6705-6715

15. A.Dziedzicka, B.Sulikowski, M.Ruggiero-Mikołajczyk "Catalytic and physicochemical properties of modified natural clinoptilolite", Catal. Today, 259 (2016) 50-58

16. K.Freindl, T.Ossowski, M.Zając, N.Spiridis, D.Wilgocka-Ślęzak, E.Madej, T.Giela, A.Kiejnia, J.Korecki "Oxygen Adsorption on the Fe(110) Surface: The Old System - New Structures", J. Phys. Chem. C, 120 (2016) 3807-3813

17. M.Gackowski, E.Bielańska, K.Szczepanowicz, P.Warszyński, M.Derewinski "Deposition of zeolite nanoparticles onto porous silica monolith", Surface Innov., 4 (2016) 88-101

18. E.I.García-López, G.Marcì, F.R.Pomilla, A.Kirpsza, A.Micek-Ilnicka, A.Palmisano "Supported $H_3PW_{12}O_{40}$ for 2-propanol (photo-assisted) catalytic dehydration in gas-solid regime: The role of the support and of the pseudo-liquid phase in the (photo)activity", Appl. Catal. A, 189 (2016) 252-265

19. M.Góral-Kurbiel, R.Kosydar, J.Gurgul, B.Dembińska, P.J.Kulesza, A.Drelinkiewicz "Carbon-supported PdxPty nanoparticles for oxygen reduction The effect of Pd/Pt ratio", Electrochim. Acta, 222 (2016) 1220-1233

20. K.Górniak, T.Szydłak, A.Gaweł, A.Klimek, A.Tomczyk, B.Sulikowski, Z.Olejniczak, J.Motyka, E.M.Serwicka, K.Bahranowski "Commercial bentonite from the Kopernica deposit (Tertiary, Slovakia): a petrographic and mineralogical approach", Clay Minerals, 51 (2016) 97-124

21. H.Guesmi, R.Gryboś, J.Handzlik, F.Tielens "Characterization of tungsten monomeric oxide species supported on hydroxylated silica; a DFT study", RSC Adv., 6 (2016) 39424-39432

22. J.Handzlik, R.Gryboś, F.Tielens "Isolated Chromium(VI) Oxide Species Supported on Al-Modified Silica: A Molecular Description", J. Phys. Chem. C, 120 (2016) 17594-17603

23. J.Heider, M.Szaleniec, B.M.Martins, D.Seyhan, W.Buckel, B.T.Golding "Structure and Function of Benzylsuccinate Synthase and Related Fumarate-Adding Glycyl Radical Enzymes", J. Mol. Microbiol. Biotechnol., 26 (2016) 29-44

24. J.Heider, M.Szaleniec, K.Sunwoldt, M.Boll "Ethylbenzene Dehydrogenase and Related Molybdenum Enzymes Involved in Oxygen-Independent Alkyl Chain Hydroxylation", J. Mol. Microbiol. Biotechnol., 26 (2016) 45-62

25. K.Hnida, S.Baessler, J.Mech, K.Szaciłowski, R.Socha, M.Gajewska, K.Nielsch, M.Przybylski, G.Sulka "Electrochemically deposited nanocrystalline InSb thin films and their electrical properties", J. Mater. Chem. C, 2016) 1345-1350

26. G.Iglesias, A.V.Delgado, M.Kujda, M.M.Ramos-Tejada "Magnetic hyperthermia with magnetite nanoparticles: electrostatic and polymeric stabilization", Colloid Polymer Sci., 294 (2016) 1541-1550

27. B.Jachimska, K.Tokarczyk "Combining Surface Plasmon Resonance and Quartz Crystal Microbalance To Determine Hydration of Dendrimer Monolayers", J. Phys. Chem. C, 120 (2016) 19678-19685

28. B.Jachimska, K.Tokarczyk, M.Łapczyńska, A.Puciul-Malinowska, Sz.Zapotoczny "Structure of bovine serum albumin adsorbed on silica investigated by quartz crystal microbalance", Colloids Surf. A, 489 (2016) 163-172

29. E.Jarek, P.Warszyński, M.Krzan "Influence of different electrolytes on bubble motion in ionic surfactants solutions", Colloids Surf. A, 505 (2016) 171-178

30. J.Juhaniewicz, L.Szyk-Warszyńska, P.Warszyński, S.Sęk "Interaction of Cecropin B with Zwitterionic and Negatively Charged Lipid Bilayers Immobilized at Gold Electrode Surface", Electrochim. Acta, 204 (2016) 206–217

31. I.Kocemba, J.Rynkowski, J.Gurgul, R.Socha, K.Łątka, J.-M.Krafft, S.Dzwigaj "Nature of the active sites in CO oxidation on FeSiBEA zeolites", Appl. Catal. A, 519 (2016) 16-26

32. M.Kołodziej, A.Drelinkiewicz, E.Lalik, J.Gurgul, D.Duraczyńska, R.Kosydar "Activity/selectivity control in Pd/H_xMoO_3 catalyzed cinnamaldehyde hydrogenation", Appl. Catal. A, 515 (2016) 60-71

33. Ł.Kończak, J.Narkiewicz-Michalek, G.Pastorin, T.Pańczyk "Effects of intermolecular interactions on the stability of carbon nanotube-gold nanoparticle conjugates in solution", Int. J. Nanomedicine, 11 (2016) 5837-5849

34. M.Kopeć, K.Szczepanowicz, P.Warszyński, P.Nowak "Liquid-core polyelectrolyte nanocapsules produced by membrane emulsification as carriers for corrosion inhibitors", Colloids Surf A, 510 (2016) 2-10

35. P.B.Kowalczuk, J.Zawała,"A relationship between time of three-phase contact formation and flotation kinetics of naturally hydrophobic solids", Colloids Surf. A, 506 (2016) 371-377

36. P.Kowalczuk, J.Zawała, D.Kosior, J.Drzymała, K.Małysa "Three-Phase Contact Formation and Flotation of Highly Hydrophobic Polytetrafluoroethylene in the Presence of Increased Dose of Frothers", Ind. Eng. Chem. Res., 55 (2016) 839-843

37. P.Kowalczuk, J.Zawała, J.Drzymala, K.Małysa "Influence of hexylamine on kinetics of flotation and bubble attachment to the quartz surface", Separation Sci. Technol., 51 (2016) 2681-2690

38. A.Kozioł-Rachwał, T.Ślęzak, T.Nozaki, S.Yuasa, J.Korecki "Growth and magnetic properties of ultrathin epitaxial FeO films and Fe/FeO bilayers on MgO(001)", Appl. Phys. Lett., 108 (2016) 041606

39. T.Kruk, K.Szczepanowicz, D.Kręgiel, L.Szyk-Warszyńska, P.Warszyński "Nanostructured multilayer polyelectrolyte films with silver nanoparticles as antibacterial coatings", Colloid Surf. B, 137 (2016) 158-166

40. L.Krzemień, M.Łukomski, Ł.Bratasz, R.Kozłowski, M.F.Mecklenburg "Mechanism of craquelure pattern formation on panel paintings", Stud. Conserv., 61 (2016) 324-330

41. K.Kubiak, Z.Adamczyk, M.Cieśla "Fibrinogen adsorption mechanisms at the gold substrate revealed by QCM-D measurements and RSA modeling", Colloids Surf. B, 139 (2016) 123-131

42. K.Kubiak, Z.Adamczyk, J.Maciejewska, M.Oćwieja "Gold Nanoparticle Monolayers of Controlled Coverage and Structure", J. Phys. Chem. C, 120 (2016) 11807-11819

43. K.Kubiak-Ossowska, B.Jachimska, P.Mulheran "How Negatively Charged Proteins Adsorb to Negatively Charged Surfaces - a Molecular Dynamics Study of BSA Adsorption on Silica", J. Phys. Chem. B, 120 (2016) 10463-10468

44. M.Kujda, Z.Adamczyk, M.Cieśla "Monolayers of the HSA dimer on polymeric microparticles-electrokinetic characteristics", Colloids Surf. B, 148 (2016) 229-237

45. E.Lalik, A.Drelinkiewicz, R.Kosydar, R.Tokarz-Sobieraj, M.Witko, T.Szumełda, J.Gurgul, D.Duraczyńska "A role of Au-content in performance of Pd-Au/SiO_2 and Pd-Au/Al_2O_3 catalyst in the hydrogen and oxygen recombination reaction. The microcalorimetric and DFT studies", Appl. Catal. A, 517 (2016) 196-210

46. J.Lewandowska-Łańcucka, K.Mystek, A.Gilarska, K.Kamiński, M.Romek, B.Sulikowski, M.Nowakowska "Silicone-stabilized liposomes as a possible novel nanostructural drug carrier", Colloids Surf. B, 143 92016) 359-370

47. K.Luberda-Durnaś, A.González Guillén, W.Łasocha "Synthesis optimisation and characterisation of the organic-inorganic layered materials ZnS(m-xylylenediamine)(1/2) and ZnS(p-xylylenediamine)(1/2)", J. Solid State Chem., 238 (2016) 162-169

48. S.Łukasiewicz, K.Szczepanowicz, K.Podgorna, E.Blasiak, N.Majeed, S.Ogren, W.Nowak, P.Warszyński, M.Dziedzicka-Wasylewska "Encapsulation of Clozapine in polymeric nanocapsules and its biological effects", Colloids Surfaces B, 140, (2016) 342-352

49. D.Majda, A.Korzeniowska, W.Makowski, A.Michalik-Zym, B.D.Napruszewska, M.Zimowska, E.M.Serwicka "Thermoporosimetry of n-alkanes for characterization of mesoporous SBA-15 silicas - Refinement of methodology", Microporous Mesoporous Mater., 222 (2016) 33-43

50. D.Majda, B.D.Napruszewska, M.Zimowska, W.Makowski "Porosity of SBA-15 after functionalization of the surface with Aminosilanes", Microporous Mesoporous Mater., 234 (2016) 98-106

51. D.Majda, K.Tarach, K.Góra-Marek, A.Michalik-Zym, B.D.Napruszewska, M.Zimowska, E.M.Serwicka "Thermoporosimetry of n-alkanes for characterization of mesoporous SBA-15 silicas – Towards deeper understanding the effect of the probe liquid nature", Microporous Mesoporous Mater., 226 (2016) 25-33

52. L.Manjakkal, K.Cvejin, J.Kulawik, K.Zaraska, R.Socha, D.Szwagierczak "X-ray photoelectron spectroscopic and electrochemical impedance spectroscopic analysis of RuO_2-Ta_2O_5 thick film pH sensors", Anal. Chim. Acta, 931 (2016) 47-56

53. A.Michna, Z.Adamczyk, M.Williams, S.P.Armes "Streaming potential studies of the adsorption of fluorescently-labeled poly (ethylene imine) onto mica", Colloids Surf. A, 494, (2016) 256-265

54. A.Mleczkowska, M.Strojecki, Ł.Bratasz, R.Kozłowski "Particle penetration and deposition inside historical churches", Building Environ., 95 (2016) 291-298

55. M.Morga, Z.Adamczyk, D.Kosior "Silica Monolayer Formation and Stability Determined by in situ Streaming Potential Measurements", J. Colloid Interface Sci., 206 (2016) 409-418

56. M.Mosiałek "Foreword", Electrochim. Acta. 212 (2016) 808-809

57. M.Mosiałek, A.Kędra, M.Krzan, E.Bielańska, M.Tatko "$Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-d}$-$La_{0.6}Sr_{0.4}Co_{0.8}Fe_{0.2}O_{3-d}$ composite cathode for solid oxide fuel cell", Arch. Metal. Mater. 61 (2016) 1137-1141

58. M. Nattich-Rak, Z. Adamczyk, M. Kujda, "Revealing Deposition Mechanism of Colloid Particles on Human Serum Albumin Monolayers", Colloids and Surfaces B: Biointerfaces, 137 (2016) 176-182

59. E.Niedziałkowska, O.Gąsiorowska, K.B.Handing, K.A.Majorek, P.J.Porębski, I.G.Shabalin, E.Zasadzińska, M.Cymborowski, W.Minor "Protein purification and crystallization artifacts: The tale usually not told". Protein Sci., 25 (2016) 720-733

60. J.Olszówka, R.Karcz, B.Napruszewska, E.Bielańska, R.Dula, M.Krzan, M.Nattich-Rak, R.P.Socha, A.Klimek, K.Bahranowski, E.M.Serwicka "Magnesium and/or calcium - containing natural minerals as ecologically friendly catalysts for the Baeyer-Villiger oxidation of cyclohexanone with hydrogen peroxide", Appl. Catal. A, 509 (2016) 52-65

61. A.Pacuła, K.Uosaki, R.P.Socha, E.Bielańska, P.Pietrzyk, M.Zimowska "Nitrogen-doped carbon materials derived from acetonitrile and Mg-Co-Al layered double hydroxides as electrocatalysts for oxygen reduction reaction", Electrochim. Acta, 212 (2016) 47-58

62. T.Pańczyk, Ł.Kończak, J.Narkiewicz-Michałek, G.Pastorin "Corking and Uncorking Carbon Nanotubes by Metal Nanoparticles Bearing pH-Cleavable Hydrazone Linkers. Theoretical Analysis Based on Molecular Dynamics Simulations", J. Phys. Chem. C, 120 (2016) 639-649

63. T.Pańczyk, P.Wolski, L.Łajtar "Coadsorption of Doxorubicin and Selected Dyes on Carbon Nanotubes. Theoretical Investigation of Potential Application as a pH-Controlled Drug Delivery System", Langmuir, 32 (2016) 4719-4728

64. G.Para, J.Łuczyński, J.Palus, E.Jarek, K.A.Wilk, P.Warszyński "Hydrolysis driven surface activity of esterquat surfactants", J. Colloid Interface Sci., 465 (2016) 174-182

65. W.Płaziński, M.Drach, A.Płazińska "Ring inversion properties of 1 -> 2, 1 -> 3 and 1 -> 6-linked hexopyranoses and their correlation with the conformation of glycosidic linkages", Carbohydr. Res., 423 (2016) 43-48

66. W.Płaziński, A.Lonardi, P.H.Hünenberger "Revision of the GROMOS 56A6CARBO force field for hexopyranose-based carbohydrates: improving the description of ring-conformational equilibria in oligo- and polysaccharide chains", J. Comp. Chem., 37, (2016) 354–365

67. W.Płaziński, A.Płazińska, M.Drach "Acyclic forms of aldohexoses and ketohexoses in aqueous and DMSO solutions: conformational features studied using molecular dynamics simulations", Phys. Chem. Chem. Phys., 18 (2016) 9626-9635

68. K.Podgórna, K.Szczepanowicz "Synthesis of polyelectrolyte nanocapsules with iron oxide (Fe3O4) nanoparticles for magnetic targeting", Colloids Surf. A, 505 (2016) 132-137

69. M.Quesne, T.Borowski, S.de Visser "Quantum Mechanics/Molecular Mechanics Modeling of Enzymatic Processes: Caveats and Breakthroughs", Chem. Eur. J., 22 (2016) 2562-2581

70. R.Rabus, M.Boll, J.Heider, R.U.Meckenstock, W.Buckel, O.Einsle, U.Ermler, B.T.Golding, R.P.Gunsalus, P.M.H.Kroneck, M.Krueger, T.Lueders, B.M.Martins, F.Musat, H.H.Richnow, B.Schink, J.Seifert, M.Szaleniec, T.Treude, G.M.Ullmann, C.Vogt, M.von Bergen, H.Wilkens "Anaerobic Microbial Degradation of Hydrocarbons: From Enzymatic Reactions to the Environment", J. Mol. Microbiol. Biotechnol., 26 (2016) 5-28

71. J.Radivojevic, S.Skaro, L.Senerovic, B.Vasiljevic, M.Guzik, S.T.Kenny, V.Maslak V, J.Nikodinovic-Runic, K.E.O'Connor "Polyhydroxyalkanoate-based 3-hydroxyoctanoic acid and its derivatives as a platform of bioactive compounds", Appl. Microbiol. Biotechnol., 100 (2016) 161-172

72. M.Radoń, K.Gąssowska, J.Szklarzewicz, E.Brocławik "Spin-State Energetics of Fe(III) and Ru(III) Aqua Complexes: Accurate ab Initio Calculations and Evidence for Huge Solvation Effects", J. Chem. Theory Comput., 12 (2016) 1592-1605

73. B.Russell, B.Jachimska, I.Kralka, P.Mulheran, Y.Chen "Human Serum Albumin Encapsulated Gold Nanoclusters: Effects of Cluster Synthesis on Natural Protein Characteristics", J. Mater. Chem. B, 4 (2016) 6876-6882

74. M.Sadowska, Z.Adamczyk, M.Oćwieja, M.Nattich-Rak "Monolayers of silver nanoparticles on positively charged polymer microspheres", Colloids Surf A, 499 (2016) 1-9

75. M.Sakamaki, K.Amemiya, I.Sveklo, P.Mazalski, M.O.Liedke, J.Fassbender, Z.Kurant, A.Wawro, A.Maziewski "Formation of Co nanodisc with enhanced perpendicular magnetic anisotropy driven by Ga+ ion irradiation on Pt/Co/Pt films", Phys. Rev. B, 94 (2016) 174422

76. S.Saraf, A.Miłaczewska, T.Borowski, C.James, D.Tierney, M.Popova, A.Arif, L.Berreau "Anion Effects in Oxidative Aliphatic Carbon-carbon Bond Cleavage Reactions of Cu(II) Chlorodiketonate Complexes", Inorg. Chem., 55, (2016) 6916-6928

77. D.Seyhan, P.Friedrich, M.Szaleniec, M.Hilberg, W.Buckel, B.T.Golding, J.Heider "Elucidating the Stereochemistry of Enzymatic Benzylsuccinate Synthesis with Chirally Labeled Toluene", Angew. Chem. Int. Ed., 55 (2016) 11664-11667

78. M.Skoczek, M.Nosek, P.Weroński "Voltammetric monitoring of prostasome aggregation and self-fusion", 190 (2016) 1078-1086

79. K. Sofińska, Z. Adamczyk, J. Barbasz, "Mechanism of immunoglobulin G adsorption on polystyrene microspheres", Colloids Surf. B, 137 (2016) 183-190

80. A.Stępniewski, M.Radoń, K.Góra-Marek, E.Brocławik "Ammonia-modified Co(II) sites in zeolites: spin and electron density redistribution through the Co^{II}-NO bond", Phys. Chem. Chem. Phys., 18 (2016) 3716-3729

81. M.Szaleniec, J.Heider "Modeling of the Reaction Mechanism of Enzymatic Radical C-C Coupling by Benzylsuccinate Synthase", Int. J. Mol. Sci., 17 (2016) 514:1-22

82. K.Szczepanowicz, M.Bzowska, T.Kruk, A.Karabasz, J.Bereta, P.Warszyński "Pegylated polyelectrolyte nanoparticles containing paclitaxel as a promising candidate for drug carriers for passive targeting", Colloids Sutf. B, 143 (2016) 463-471

83. K.Szczepanowicz, D.Jantas, M.Piotrowski, J.Staroń, M.Leśkiewicz, M.Regulska, W.Lasoń, P.Warszyński "Encapsulation of curcumin in polyelectrolyte nanocapsules and their neuroprotective activity", Nanotechnol., 27 (2016) 355101

84. A.Szymańska, W.Nitek, M.Oszajca, W.Łasocha, K.Pamin, J.Połtowicz "Molybdenum Complexes as Catalysts for the Oxidation of Cycloalkanes with Molecular Oxygen", Catal. Lett., 146 (2016) 998-1010

85. A.Szymańska-Michalak, D.Wawrzyniak, G.Framski, M.Kujda, J.Stawiński, J.Barciszewski, J.Boryski, A.Kraszewski "New 3′-O-aromatic acyl-5-fluoro-2′-deoxyuridine derivatives as potential anticancer agents", European J. Medicinal Chem., 115 (2016) 41–52

86. M.Ślęzak, T.Ślęzak, K.Matlak, BMatlak, P.Drożdż, T.Giela, D.Wilgocka-Ślęzak, N.Pilet, J.Raabe, A.Kozioł-Rachwał, J.Korecki "Giant in-plane magnetic anisotropy in epitaxial bcc Co/Fe(110) bilayers", Phys. Rev. B, 94 (2016) 014402

87. J.Ślusarczyk, M.Piotrowski, K.Szczepanowicz, M.Regulska, M.Leśkiewicz, P.Warszyński, B.Budziszewska, W.Lasoń, A.Basta-Kaim "Nanocapsules with Polyelectrolyte Shell as a Platform for 1, 25-dihydroxyvitamin D3 Neuroprotection: Study in Organotypic Hippocampal Slices", Neurotoxicity Res., 30 (2016) 581-592

88. E.Tabor, J.Połtowicz, K.Pamin, S.Basąg, W.Kubiak "Influence of substituents in meso-aryl groups of iron μ-oxo porphyrins on their catalytic activity in the oxidation of cycloalkanes", Polyhedron, 119 (2016) 342-349

89. K.A.Tarach, J.Tekla, W.Makowski, U.Filek, K.MlekodajV.Girman, M.Choi, K.Góra-Marek "Catalytic dehydration of ethanol over hierarchical ZSM-5 zeolites: studies of their acidity and porosity properties", Catal. Sci. Technol., 6 (2016) 3568-3584

90. M.Tatko, M.Mosiałek, A.Kędra, E.Bielańska, M.Ruggiero-Mikołajczyk, P.Nowak "Thermal shock resistant composite cathode material $Sm_{0.5}Sr_{0.5}CoO_{3-\delta}$–$La_{0.6}Sr_{0.4}FeO_{3-\delta}$ for solid oxide fuel cells", J. Solid State Electrochem., 20 (2016) 143-151

91. B.Trzewik, K.Chruszcz-Lipska, A.Miłaczewska, J.Opalińska-Piskorz, R.Karcz, R.Gryboś, M.Oszajca, K.Luberda-Durnaś, W.Łasocha, A.N.Fitch, B.Sulikowski, T.Borowski "Synthesis and crystal structure of dimeric 1-hydroxyhexane-2,3-dione and spectral characteristics of a model acireductone", New J. Chem., 40 (2016) 9291-9303

92. V.Valmacco, M.Elżbieciak-Wodka, C.Besnard, P.Maroni, G.Trefalt, M.Borkovec "Dispersion forces acting between silica particles across water: influence of nanoscale roughness", Nanoscale Horizons, 1 (2016) 325-330

93. V.Valmacco, M.Elżbieciak-Wodka, D.Herman, G.Trefald, P.Maroni, M.Borkovec "Forces between silica particles in the presence of multivalent cations", J. Colloid Interface Sci., 472 (2016) 108-115

94. K.Valkaj, V.Tomasic, A.Katovic, E.Bielańska "Synthesis and characterization of Cu-MFI catalyst for the direct medium temperature range NO decomposition", Mater. Sci. Poland, 34 (2016) 177-184

95. M.Wasilewska, Z.Adamczyk, T.Basińska, M.Gosecka, D.Lupa "Monolayers of Poly(styrene/α-tert-butoxy-ω-vinylbenzyl-polyglycidol) Microparticles Formed by Controlled Self-Assembly with Potential Application as Protein-Repelling Substrates", Langmuir, 32 (2016) 9566-9574

96. Z.Wojdyła, T.Borowski "DFT study of the mechanism of manganese quercetin 2,3-dioxygenase: quest for origins of enzyme unique nitroxygenase activity and regioselectivity", J. Biol. Inorg. Chem., 21 (2016) 475-489

97. J.Wojewoda-Budka, A.Wierzbicka-Miernik, L.Lityńska-Dobrzyńska, M.Szczerba, G.Mordarski, M.Mosiałek, Z.Huber, P.Zięba "Microstructure characteristics and phase transformations of the Ni-P and Ni-P-Re electroless deposited coatings after heat treatment", Electrochim. Acta, 209 (2016) 183-191

98. M.Wojnicki, E.Rudnik, M.Luty-Błocho, R.Socha, Z.Pedzich, K.Fitzner, K.Mech "Kinetic Studies of Gold Recovery from Diluted Chloride Aqueous Solutions Using Activated Carbon Organosorb 10 CO", Austral. J. Chem., 69 (2016) 254-261

99. A.Wójcik, M.Radoń, T.Borowski "Mechanism of O-2 Activation by alpha-Ketoglutarate Dependent Oxygenases Revisited. A Quantum Chemical Study", J. Phys. Chem. A, 120 (2016) 1261-1274

100. J.Zawała ""Immortal" liquid film formed by colliding bubble at oscillating solid substrates", Phys. Fluids, 28 (2016) 057103

101. J.Zawała "Energy balance in viscous liquid containing a bubble: rise due to buoyancy", Can. J. Chem. Eng., 94 (2016) 586-595

102. J.Zawała, D.Kosior "Dynamics of dewetting and bubble attachment to rough hydrophobic surfaces - measurements and modelling", Minerals Eng., 85 (2016) 112-122

103. J.Zawała, D.Kosior, T.Dąbroś, K.Małysa "Influence of bubble surface fluidity on collision kinetics and attachment to hydrophobic solids", Colloids Surf. A, 505 (2016) 47-55

104. K.Ziewiec, M.Wojciechowska, A.Błachowski, K.Ruebenbauer, I.Jankowska-Sumara, K.Prusik, D.Mucha, J. Latuch "Corrigendum to “Microstructure, fracture, and thermal stability of Ni–Fe–Cu–P–B two-phase amorphous composite produced from the double chamber crucible” [Intermetallics 65 (2015) 15-21]", Intermetallics, 69 (2016) 131

105. K.Ziewiec, M.Wojciechowska, K.Prusik, D.Mucha, I.Jankowska-Sumara "The Microstructure and Thermal Stability of the Two-Component Melt-Spun $Ni_{55}Fe_{20}Cu_5P_{10}B_{10}$ TCMS Amorphous/Amorphous Composite", Acta Phys. Polonica A, 130 (2016) 927-930

106. M.Zimowska, J.Gurgul, H.Palkova, Z.Olejniczak, K.Łątka, L.Lityńska-Dobrzyńska, L.Matachowski "Structural rearrangements in Fe-porous clay heterostructures composites derived from Laponite (R) - Influence of preparation methods and Fe source", Microporous Mesoporous Mater., 231 (2016) 66-81

107. M.Zimowska, L.Lityńska-Dobrzyńska, Z.Olejniczak, R.Socha, J.Gurgul, K.Łątka "Alteration of the structure and surface composition of crystalline-amorphous porous clay heterostructures upon iron doping from metal-organic source", Surf. Interface Anal., 48 (2016) 527-531

108. M.Zimowska, K.Łątka, D.Mucha, J.Gurgul, L.Matachowski "The continuous conversion of ethanol and water mixtures into hydrogen over $Fe_xO_y/_{MoO3}$ catalytic system - XPS and Mössbauer studies", J. Mol. Catal. A, 423 (2016) 92-104

109. M.Zimowska, A.Michalik-Zym, J.Kryściak-Czerwenka, R.Dula, R.P.Socha, K.Pamin, M.Bazarnik, K.Bahranowski, Z.Olejniczak, L.Lityńska-Dobrzyńska, E.M.Serwicka "A comparative study of direct versus post-synthesis alumination of mesoporous FSM-16 silica", Mater. Res. Bull., 83 (2016) 623-631

110. P.Żeliszewska, A.Bratek-Skicki, Z.Adamczyk, M.Cieśla "Modelling and measurements of fibrinogen adsorption on positively charged microspheres", Condensed Matter Phys., 19 (2016) 13801:1-14

Articles in other journals and books

1. A.Bratek-Skicki, C.Dupont-Gillain "Protein adsorption on stimuli-responsive mixed PDMAEMA/PEO polymer brushes", FEBS J., 283S (2016) 316-317

2. J.Czop, P.Frączek, J.M.del Hoyo-Meléndez, M.Matosz, M.Obarzanowski, J.Sobczyk, R.Kozlowski, L.Krzemień, M.Łukomski, D.Węgrzynek, P.Wiącek, P.Wróbel, Ł.Bratasz "Leonardo da Vinci Lady with an Ermine - the latest research into the artist's painting technique and the state of preservation of the painting", Rozprawy Muzeum Narodowego w Krakowie, Seria Nowa, 8 (2015) 229-259

3. M.Dudek, P.Tomczyk, A.Raźniak, B.Lis, M.Reben, M.Gajek, R.P.Socha "Wybrane problemy badawcze reakcji redukcji tlenu na granicy faz Pt|8YSZ", Materiały Ceramiczne, 68 (2016) 162-167

4. D.Duraczyńska, A.Michalik-Zym, B.D.Napruszewska, R.Dula, R.P.Socha, L.Lityńska-Dobrzyńska, A.Gaweł, K.Bahranowski, E.M.Serwicka "Efficient and Verstaile Ru/SBA-15 Catalysts for Liquid-Phase Hydrogenation of the C=C and C=O Bonds under Mild Conditions", ChemistrySelect, 1 (2016) 2148-2155

5. A.Gancarczyk, M.Iwaniszyn, Ł.Mokrzycki, W.Rojek, D.Duraczyńska, T.Machej, J.Kowalska, M.Jaroszyński, A.Kołodziej "VOC combustion on ceramic foam supported catalyst", Prace Naukowe IICh PAN, 20 (2016) 155-165

6. A.Jagusiak, B.Piekarska, K.Chłopas, E.Bielańska, T.Pańczyk "Shortening and dispersion of single-walled carbon nanotubes upon interaction with mixed supramolecular compounds", Bio-Algorithms Med-Systems, 12 (2016) 123-132

7. A.Kędra, M.Mosiałek, M.Krzan, M.Tatko, M.Zimowska, E.Bielańska, E.Czerlunczakiewicz "Supporting effect of silver on BSCF cathodes for SOFC", Materiały Ceramiczne, 68 (2016) 70-75

8. A.Maciej, J.Michalska, W.Simka, R.Socha "Anodowa obr óbka galwanicznych powłok stopowych Zn-Ni", Ochrona przed Korozją, 59 (2016) 363-367

9. A.Maciej, K.Matuszak, W.Simka, T.Gorewoda, R.Socha "Wpływ dodatku cieczy jonowych na bazie 2-pikoliny na strukturę anodowo utlenionych powłok stopowych Zn-Co", Ochrona przed Korozją, 59 (2016) 136-140

10. J.Maciejewska, M.Oćwieja, Z.Adamczyk, E.Bielańska, B.Napruszewska "Titanium dioxide/silver nanopraticle bilayers prepared in self - assembly processes", Annales UMCS, Sectio AA, 71, 1 (2016) 29-46

11. A.Micek-Ilnicka, U.Filek "Ostatnie lata pracy naukowej Pana Profesora Adama Bielańskiego", Niedziałki, 104 (3) (2016) 60-65

12. G.Nawrat, G.Lach, Ł.Nieużyła, P.Nowak "Twarde powłoki tlenkowe na duralu (Hard anodic coatings on duralumin)", Ochrona przed Korozją, 59 (2016) 154-159

13. P.Nowak, M.Mosiałek, G.Mordarski "Badania nad stałotlenkowymi ogniwami paliwowymi (SOFC) w Instytucie Katalizy i Fizykochemii Powierzchni im. Jerzego Habera PAN w Krakowie", Biul. PSWiOP, 10 (2016) 23-25

14. P.Panek, R.P.Socha, M.Juel, P.Zięba "The liquid phosphorus source for Si solar cells fabrication", Inżynieria Materiałowa, 4 (2016) 172-177

15. P.Panek, R.P.Socha, G.Putynkowski, A.Slaoui "The new copper composite of pastes for Si solar cells front electrode application", Energy Procedia, 92 (2016) 962-970

16. J.Staroń, E.Cichoń, M.Stefaniak, M.Guzik "Chemo-biotechnological synthesis of precursors for biocatalytic acylation of sugars", New Biotechnol., 33S (2016) S106

17. M.Szaleniec, J.Heider "Enzymatic C-C bond formation by benzylsuccinate synthases – A key step in anaerobic microbial degradation of hydrocarbons", New Biotechnol., 33S (2016) S140

18. M.Szaleniec, A.Rugor, T.Janeczko, M.Hochołowski, M.Guzik "Selective modifications of steroids and sterols by enzymes from bacterial cholesterol degradation pathway", New Biotechnol., 33S (2016) S107

19. M.Szaleniec, A.Rugor, A.Wójcik "Steroid C25 dehydrogenase – the mechanism of regioselective hydroxylation of sterols and cholecalciferol", New Biotechnol., 33S (2016) S107

20. J.Szaleniec, M.Szaleniec, P.Stręk "A stepwise protocol for neural network modeling of persistent postoperative facial pain in chronic rhinosinusitis", Bio-Algorithms Med-Systems, 12 (2016) 81–88

21. M.Witko "Adam Bielański (1912-2016)" Nauka (4) (2016) 139-142

Books issued by the Institute [with ISBN number]

1. "XLVIII Ogólnopolskie Kolokwium Katalityczne, XVLIII Polish Annual Conference on Catalysis, 16-18.03.2016, Kraków" (U.Filek, B.Sulikowski, eds.), IKiFP PAN, Kraków, 2016, pp. 3465[ISBN 978-83-60514-24-5]

2. "16th International Conference on Theoretical Aspec5ts of Catalysis, Zakopane, Poland, 19th-23rd June, 1016", (D.Rutkowska-Żbik, ed.), IKiFP PAN Kraków, 2016, pp.104 [ISBN 978-83-60514-25-2]

Patents

1. Z.Adamczyk, M.Kujda, M.OĆwieja "Sposób wytwarzania stabilnych suspensji nanocząstek srebra oraz zastosowanie stabilnych suspensji nanocząstek srebra do celów biobójczych", Patent RP, PL 224713 (2016)

2. R.Dula, T.Machej, A.Michalik-Zym, Ł.Mokrzycki, B.Napruszewska, E.Serwicka-Bahranowska, M.Zimowska "Sposób wytwarzania tlenkowego katalizatora miedziowo-manganowego na nośniku monolitycznym do utleniania zanieczyszczeń, zwłaszcza organicznych, w procesach oczyszczania gazów", Patent RP, PL 224716 (2016)

3. R.Dula, T.Machej, A.Michalik-Zym, Ł.Mokrzycki, B.Napruszewska, E.Serwicka-Bahranowska, M.Zimowska "Sposób wytwarzania monolitycznego tlenkowego katalizatora manganowo-miedziowego domieszkowanego cyrkonem i cerem do utleniania zanieczyszczeń, zwłaszcza organicznych, w procesach oczyszczania gazów", Patent RP, PL 224715 (2016)

4. M.Szaleniec, M.Tataruch, J.Bryjak, P.Nowak "Sposób otrzymywania chiralnie czystych alkoholi alkiloaromatycznych i alkiloheterocyklicznych oraz układ reaktorowy do realizacji tego sposobu", Patent RP, PL 225172 (2016)

Patent apllications

1. M.Oćwieja, Z.Adamczyk, J.Maciejewska-Prończuk "Sposób modyfikowania powierzchni stałych o ujemnym ładunku powierzchniowym, zwłaszcza powierzchni sensorów mikrowag kwarcowych, dodatnio naładowanymi nanocząstkami złota", zgłoszenie patentowe RP, P.419878 (19.12.2016)

2. T.J.Brunchwiler, B.Burg, R.Dixon, H.Kristiansen, P.Warszyński, J.Zuercher " Bridging Arrangement, Microelectronic component and Method for manufacturing A Bridging Arrangement ", zgłoszenie patentowe UK GB 2531760; zgłoszenie patentowe USA, US 2016126202

Presentations at conferences

Oral presentations are only listed.

2014

Plenary, keynote and invited lectures

1. Z.Adamczyk "Nanoparticle and protein adsorption guest for a universal mechanism", Conf. Nanotechnology: Research and Development, Vilnius 2014

2. Z.Adamczyk "Protein Adsorption - Mythology and (or) Science", 5th US-Poland Workshop: Thermodynamics of Complex Fluids and Interfaces, Warszawa 2014

3. Z.Adamczyk, M.Morga, A.Michna "Adsorption Mechanisms of Polyelectrolytes and Proteins", 20th Int. Symp. on Surfactants in Solution SIS 2014, Coimbra 2014

4. T.Borowski "Spin states and reaction mechanisms of mononuclear non-heme metalloenzymes - computational studies", COST Action CM1305 First Scientific Workshop, Girona 2014

5. E.Brocławik, M.Radoń, T.Borowski, A.Stępniewski "Spin- and electron density redistribution upon binding of noninnocent ligand by iron and related TM sites in enzymatic environment", Conf. From Computational Biophysics to Systems Biology CBSB14, Gdańsk 2014

6. E.Brocławik, A.Stępniewski, K.Góra-Marek, M.Radoń "Donor modifiers of Co(II) active sites: explicit spin and charge transfer channels for NO - NH_3 co-adsorption in zeolites", Conf. Modelling and Design of Molecular Materials, Kudowa Zdrój 2014

7. A.Drelinkiewicz, E.Lalik, R.Kosydar, W.Rojek, J.Gurgul, T.Szumełda, M.Kołodziej, R.Tokarz-Sobieraj "Kataliza – bezpieczeństwo reaktorów nuklearnych", Konf. Struktura a Reaktywność Układów Metal/Nośnik, Falenty 2014

8. M.Góral-Kurbiel, A.Drelinkiewicz, R.Kosydar, B.Dembińska, P.J.Kulesza, J.Gurgul "Investigations into palladium-polypyrrole nanocomposites for reduction of oxygen in acid medium", Int. Symp. on Clean Energy from Ethanol ISCEE 2014, Rzeszów2014

9. B.Jachimska "A comprehensive study of phenomenon of the proteins adsorption", MP-SPR Scientific Meeting Europe, Amsterdam 2014

10. B.Jachimska "Structural rearrangements of globular protein on solid surface", MP-SPR Scientific Meeting Europe, Amsterdam 2014

11. B.Jachimska, K.Bieda, M.Ćwięka, "Structure of adsorbed polyelectrolyte (dendrymer, protein) monolayers investigated by MP-SPR", MP-SPR Scientific Meeting in China, Beijing 2014

12. T.Korona, H.Dodziuk, A.Hesselmann, D.Rutkowska-Żbik "Endohedral complexes of fullerenes and other large complexes - what can we get from contemporary ab initio methods?", Polish-Taiwanese Conf. 'From Molecular Modeling to Nano-and Biotechnology', Opole 2014

13. W.Łasocha, K.Luberda Durnaś "New hybrid organic-inorganic materials, Synthesis, structure, applications", E-MRS, 2014 Fall Meeting Warszawa 2014

14. W.Łasocha, A.Szymańska, M.Oszajca, G.Appleby, K.Pamin, J.Połtowicz "Polymolybdates and Peroxomolybdates: Candidates for Catalysts in Industry", 23th Congr. of Int. Union of Crystallography, Montreal 2014

15. M.Mosiałek, M.Dudek, P.Nowak, R.P.Socha "Silver migration caused by polarization at the Ag|$Al_{0.04}Sc_{0.06}Zr_{0.9}O_{1.95}$ interface" Int. Symp. on Clean Energy from Ethanol ISCEE 2014, Rzeszów2014

16. P.Nowak "Surface Doping of TiO_2 by Transition Metals and the Mechanism of Charge-Transfer in Photocatalytic Systems", Int. Symp. on Energy and Environmental Photocatalytic Materials, Wuhan 2014

17. A.Pajor-Świerzy, K.Podgórna, L.Szyk-Warszyńska, M.Gackowski, T.Kruk, R.P.Socha, P.Warszyński "Nanostructured catalytic materials based on polyelectrolyte multilayers", Int. Symp. on Clean Energy from Ethanol ISCEE 2014, Rzeszów2014

18. D.Rutkowska-Żbik, A.Drzewiecka-Matuszek, T.Korona, Ł.Orzeł, M.Witko "How can DFT methods enhance applications of metalloporphyrins?", Central European Symp. on Theoretical Chemistry CESTC 2014, Nagyborzsony 2014

19. D.Rutkowska-Żbik, A.Drzewiecka-Matuszek, M.Witko "Metalloporphyrins as Bio-Mimetic Oxidation Catalysts: Joint Theoretical and Experimental Studies", 15th Int. Conf. on Theoretical Aspects of Catalysis ICTAC15, London 2014

20. D.Rutkowska-Żbik, A.Drzewiecka-Matuszek, M.Witko "Kwantowo-chemiczne badania właściwości układów porfirynowych i im pokrewnych", 57. Zjazd Naukowy PTChem i SITPCh, Częstochowa 2014

21. E.M.Serwicka, K.Bahranowski "Catalysts derived from layered minerals for abatement of volatile organic compounds", 3rd Int. Symp. on Air & Water Pollution Abatement Catalysis AWPAC, Kraków 2014

22. M.Szaleniec, M.Tataruch, T.Borowski, J.Bryjak, J.Heider "Synthesis of chiral alcohols by ethylbenzene dehydrogenase – from modeling to application", 2nd Symp. on Biotransformations for Pharmaceutical and Cosmetic Industry, Warszawa 2014

Oral presentations

1. P.Batys, K.Jamroży, A.Michna, Z.Adamczyk "Konformacje polielektrolitów w roztworach", Semin. Projektu POIG FUNANO 2014, Krakow 2014

2. P.Batys, M.Nosek, P.Weroński "Application of Monte Carlo method for adsorption process simulation", CCP5 Summer School 2014 Methods in Molecular Simulations, Manchester 2014

3. P.Batys, P.Weroński "Transport properties of layer-by-layer assemblies of spherical particles at solid/liquid interface", IXth Summer School for Graduate Students: Interfacial Phenomena in Theory and Practice, Sudomie 2014

4. M.Bobruk, M.Kopeć, T.Chmielewski, P.Nowak "Stoichiometry of copper sulfides and the electrosorption of xanthates", Mineral Engineering Conf. MEC 2014, Istebna 2014

5. T.Borowski "Quantum mechanics/molecular mechanics (QM/MM) methods – foundations & examples of bio-applications", 3rd Int. Conf. of Biophysics Students, Kraków 2014

6. T.Borowski, A.Wójcik, A.Miłaczewska "Reaction mechanisms of selected mononuclear non-heme oxygenases - insights from computational studies", Conf. Modelling and Design of Molecular Materials, Kudowa Zdrój 2014

7. M.Dudek, P.Tomczyk, M.Mosiałek, S.Żurek, A.Raźniak "Zastosowanie elektrod punktowych do badań procesów elektrochemicznych w stałotlenkowych ogniwach paliwowych", 13. Konf. Elektroanaliza w Teorii i Praktyce, Kraków 2014

8. K.Durczyk, B.Sulikowski "Ultrastabilne formy zeolitu typu Y: otrzymywanie i właściwości fizykochemiczne", 3. Ogólnopolska Konferencja 'Pomiędzy Naukami', Zjazd Fizyków i Chemików, Chorzów 2014

9. J.Dziedzic, P.Nowak, P.Warszyński "Photocatalytic degradation of the humic substances enhanced by chemical oxidation", 3rd Int. Symp. on Air & Water Pollution Abatement Catalysis AWPAC, Kraków 2014

10. A.Dziedzicka, B.Sulikowski "Dealuminiowany i desilikowany naturalny klinoptylolit w świetle badań metodą spektroskopii NMR w ciele stałym", 3. Ogólnopolska Konferencja 'Pomiędzy Naukami', Zjazd Fizyków i Chemików, Chorzów 2014

11. A.Dziedzicka, B.Sulikowski "Właściwości fizykochemiczne modyfikowanych klinoptylolitów ze złóż naturalnych", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014]

12. D.Fiksak, A.Marczakiewicz-Lusting, B.Jachimska, G.Heba, D.Dudek, J.Hartwich "The impact of triglyceride-rich lipoproteins (TRL) on plasma modified protein evaluation", 9th Bialystok Int. Medical Congr. for Young Scientists, Białystok 2014

13. T.Giela, D.Wilgocka-Ślęzak, M.Ślęzak, N.Spiridis, J.Korecki "The investigation of high temperature tungsten oxide phases and their transitions with LEEM microscopy", LEEM/PEEM 9th Workshop, Berlin 2014

14. J.M.del Hoyo-Meléndez, M.Matosz, Ł.Bratasz "XRF analysis of metallic cultural heritage objects from the National Museum in Krakow", 3rd Int. Congr. Chemistry for Cultural Heritage CHEMCH 2014, Wien 2014

15. B.Jachimska, K.Bieda "Structure of Adsorbed Dendrimer Monolayers Investigated by Combining QCM-D and MP-SPR Techniques", Symp. of the Analytical Division of SPQ-2014, Coimbra 2014

16. Z.Kalemba-Jaje, E.Lalik, A.Drelinkiewicz "Mezoporowata krzemionka jako nośnik dla polimerowych katalizatorów aktywnych w reakcjach tworzenia estrów metylowych", 2. Ogólnopolskie Forum Chemii Nieorganicznej, Wrocław 2014

17. R.Karcz, K.Pamin, J.Połtowicz, A.Michalik-Zym, B.Napruszewska, P.Niemiec, R.Tokarz, E.M.Serwicka "Kinetics of cyclooctane oxidation with dioxygen over heteropolyacid catalysts - mechanistic considerations", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

18. K.Kilan, P.Nowak, P.Warszyński "Influence of different cations on properties of alginate containing multilayers for biomedical application", COST Action CM1101 WG3 & WG4 Meeting Synthesis of advanced nano- and bio-colloidal materials with highly active surfaces, Belgrade 2014

19. Ł.Kończak, T.Pańczyk "Molecular dynamics simulations of proton transverse relaxation times in suspension of magnetic nanoparticles", Central European School on Physical Organic Chemistry, Przesieka 2014

20. K.P.Korona, S.Grankowska, A.Iwan, T.Korona, D.Rutkowska-Żbik, M.Kamińska "Optical spectroscopy of polyazomethine-PCBM nanostructures", 13. Krajowa Konf. Elektroniki, Darłówko 2014

21. R.Kosydar, A.Drelinkiewicz, E.Lalik, R.Tokarz-Sobieraj, T.Szumełda "Recombination of Hydrogen and Oxygen Catalyzed by Platinum and Palladium in Safety Point of View in Nuclear Power Plants; Role of Alkali Modifiers (Li, Cs) in Catalyst Deactivation due to Water", 2nd Int. Congr. on Energy Efficiency and Energy Related Materials ENEFM2014, Oludeniz 2014

22. K.Kruczala, M.Łukomski, Ł.Bratasz, A.Kłosowska, A.Gołąb, A.Borcuch, Z.Sojka "Mechanistic investigations into Aging of Plastic Artefacts", 5th Meeting X-ray and Other Techniques in Investigations of the Objects of Cultural Heritage, Kraków 2014

23. T.Kruk, K.Szczepanowicz, P.Warszyński "The Modification of Multilayer Polyelectrolyte Coatings for Biomedical Applications", 28th Conf. of the European Colloid and Interface Soc. ECIS2014, Limassol 2014

24. M.Krzan, E.Jarek, P.Warszyński, V.Ulaganatha, M.Lotfi, A.Javadi, R. Miller "Stable and biodegradable aqueous particle laden biofoams for medical, cosmetic or industrial applications", 10th European Conf. on Foams and Applications - Eurofoam 2014, Thessaloniki 2014

25. M.Krzan, E.Jarek, P.Warszyński, V.Ulaganatha, M.Lotfi, A.Javadi, R. Miller "Stable and biodegradable aqueous foams for industrial and biomedical applications", 20th Int. Symp. on Surfactants in Solution SIS 2014, Coimbra 2014

26. K.Kubiak, Z.Adamczyk, A.Michna, K.Jamroży "Monowarstwy nanocząstek srebra – charakterystyka QCM", Semin. Projektu POIG FUNANO 2014, Krakow 2014

27. K.Kubiak, A.Michna. Z.Adamczyk, K.Jamroży "PDADMAC Deposition studies - QCM and streaming potential measurements", IXth Summer School for Graduate Students: Interfacial Phenomena in Theory and Practice, Sudomie 2014

28. P.Kwolek, M.Łapczyńska, K.Szaciłowski "Hydrothermal synthesis and properties of lead molybdate", PhoBiA Annual Nanophotonics Int. Conf. PANIC 2014, Wrocław 2014

29. M.Łukomski, L.Krzemień "Mechanism of craquelure pattern formation on panel paintings", 16th Int. Conf. on Experimental Mechaanics ICEM16, Cambridge 2014

30. M.Łukomski, L.Krzemień, A.Kijowska, B.Mierzejewska "Analysis of the state of preservation of paintings from Faras using interferometric methods", 14. Konf. Analiza Chemiczna w Ochronie Zabytków, Warszawa 2014

31. A.Marczakiewicz-Lusting, B.Jachimska, D.Fiksak, G.Heba, D.Dudek, J.Hartwich "Molecular imaging of triglyceride-rich lipoproteins. Clinical application", 9th Bialystok Int. Medical Congr. for Young Scientists, Białystok 2014

32. A.Michna, Z.Adamczyk "Tworzenie i stabilność monowarstw poli(chlorku dimetylodialliloamoniowego) na mice wyznaczone *in situ* przy użyciu metody potencjału przepływu", 57. Zjazd Naukowy PTChem i SITPCh, Częstochowa 2014

33. A.Michna, Z.Adamczyk, K.Jamroży, P.Batys, K.Kubiak "Kinetyka adsorpcji i desorpcji polielektrolitów kationowych", Semin. Projektu POIG FUNANO 2014, Krakow 2014

34. A.Michna, Z.Adamczyk, K.Jamroży, K.Kubiak "The formation and stability of PDADMAC monolayers on mica determined in situ by QCM-D and the elektrokinetic measurements", Conf. Frontiers of Polymer Colloids: From Synthesis to Macro-Scale and Nano-Scale Applications, Prague 2014

35. A.Miłaczewska, T.Borowski "Insight into a reaction mechanism of acireductone dioxygenation – DFT studies for a model system", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

36. A.Mleczkowska, Ł.Bratasz, R.Kozłowski, M.Strojecki "Zabrudzenia wnętrz zabytkowych kościołów – źródła pyłów, ich przenoszenie i osiadanie", 14. Konf. Analiza Chemiczna w Ochronie Zabytków, Warszawa 2014

37. M.Mosiałek, M.Dudek, P.Nowak, R.P.Socha "Silver migration caused by polarization at the Ag|Al0.04Sc0.06Zr0.9O1.95 interface", Int. Symp. on Clean Energy from Ethanol ISCEE 2014, Rzeszów 2014

38. M.Nosek, P.Batys, P.Weroński, M.Skoczek "New electrochemical method for quantitative characterization of colloidal particle monolayer", IXth Summer School for Graduate Students: Interfacial Phenomena in Theory and Practice, Sudomie 2014

39. P.Nowak, M.Bobruk, T.Wieczorek, W.Simka, G.Nawrat "Polarization Resistance of Corroding Magnesium Alloys", Conf. Corrosion 2014, Gliwice 2014

40. M.Oćwieja, Z.Adamczyk, M.Morga, A.Michna, E.Bielańska, K.Kubiak, A.Węgrzynowicz "Synteza i charakterystyka fizykochemiczna nanocząstek oraz ich monowarstw", Semin. Projektu POIG FUNANO 2014, Kraków 2014

41. M.Oćwieja, Z.Adamczyk, B.Szaraniec, M.Kujda "Mechanizm uwalniania nanocząstek srebra w zastosowanich praktycznych", 57. Zjazd Naukowy PTChem i SITPCh, Częstochowa 2014

42. M.Oćwieja, A.Gorczyca, E.Pociecha "Wpływ nanocząstek srebra na rozwój i funkcjonowanie wybranych mikro- i makroorganizmów", Konf. Małopolski Festiwal Innowacji, Kraków 2014

43. J.Olszówka, E.Bielańska, B.Napruszewska, A.Michalik-Zym, E.M.Serwicka "Katalityczne utlenianie cykloheksanonu do ε-kaprolaktonu przy użyciu nadltenku wodoru w obecności katalizatorów zawierających magnez", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

44. J.Olszówka, R.Karcz, B.Napruszewska, E.M.Serwicka "Catalytic oxidation of cyclohexanone to ε-caprolactone with hydrogen peroxide over hydrotalcite catalysts", 12th Chemistry Conf. for Young Scientists, Blankenberge 2014

45. A.Pajor-Świerzy, T.Kruk, P.Warszyński "The Influence of Reduced Graphene Oxide and Conductive Polymers on the Electrocatalytic Properties of the Polyelectrolyte Multilayer Films Containing Prussian Blue Nanoparticles", 28th Conf. of the European Colloid and Interface Soc. ECIS2014, Limassol 2014

46. K.Pamin "Heteropolizwiązki jako katalizatory transformacji węglowodorów", 13. Konf. Elektroanaliza w Teorii i Praktyce, Kraków 2014

47. K.Pamin, J.Połtowicz, M.Prończuk, S.Basąg, J.Maciejewska "Hydroxylation of phenol by hydrogen peroxide catalyzed by heteropoly compounds in presence of glycerol as green solvent", 3rd Int. Symp. on Air & Water Pollution Abatement Catalysis AWPAC, Kraków 2014

48. P.Panek, K.Drabczyk, R.P.Socha, P.Zięba "Wpływ tylnej warstwy typu p+ na parametry ogniwa słonecznego na bazie krzemu typu p na podstawie obliczeń wykonanych programem komputerowym PC-1D", 5th Symp. on Photovoltaics and Transparent Electronics - Development Perspectives, Świeradów-Zdrój 2014

49. G.Para, E.Jarek, J.Łuczyński, K.A.Wilk, P.Warszyński "Adsorption of ionic-nonionic surfactant mixtures at water/air interface - alkanoic acids and cleavable cationic surfactants", COST Action CM1101 WG1, WG3, WG5 & WG6 Meeting Particles at Liquid and Solid Interfaces: Fundamentals and Applications, Genoa 2014

50. G.Para, E.Jarek, J.Łuczynski, K.A.Wilk, P.Warszyński "Adsorption of ionic-nonionic surfactant mixtures at water/air interface - alkanoic acids and cleavable cationic surfactants", 20th Int. Symp. on Surfactants in Solution SIS 2014, Coimbra 2014

51. M.Piotrowski, K.Szczepanowicz, D.Jantas, W.Lasoń, P.Warszyński "Emulsion-Core and Polyelectolyte-Shell Nanocapsules as Drug Delivery System for Undecylenic Acid", Conf. Nanocon 2014, Brno 2014

52. A.Płazińska, W.Płaziński, K.Jóźwiak "Prediction of the stereochemical effects in the ligand-receptor interactions: metadynamics simulations", Conf. Bioinformatics in Toruń BIT14, Toruń 2014

53. W.Płaziński, M.Drach "Carbohydrate ring puckering: transition path sampling analysi", 27th Int. Carbohydrate Symp., Bangalore 2014

54. A.Rugor, A.Dudzik, N.Zawada, S.Mordalski, J.Staroń, A.Bojarski, M.Szaleniec "Badania nad strukturą i aktywnością katalityczną Dehydrogenazy C25 steroidowej z Sterolibacterium Denitrificans", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

55. A.Rugor, T.Janeczko, A.Dudzik, J.Staroń, A.Bojarski, M.Szaleniec "Selective modifications of sterols performed by enzymes from Sterolibacterium denitrificans", 2nd Symp. on Biotransformations for Pharmaceutical and Cosmetic Industry, Warszawa 2014

56. M.Skoczek, P.Batys, P.Weroński, E.Luchter-Wasylewska "Quantitative characterization of model prostasome membrane - molecular dynamic simulations", IXth Summer School for Graduate Students: Interfacial Phenomena in Theory and Practice, Sudomie 2014

57. R.P.Socha, A.Kędra, M.Zimowska, P.Panek, L.Szyk-Warszyńska, M.Lipiński, P.Warszyński "The morphology and surface chemistry of silicon etched with bimetallic catalysts", 30th European Conf. on Surface Science ECOSS 30, Antalya 2014

58. R.P.Socha, A.Kędra, M.Zimowska, P.Panek, L.Szyk-Warszyńska, M.Lipiński, P.Warszyński "The studies on application of the metallic and bimetallic catalysts for silicon etching", 5th Symp. on Photovoltaics and Transparent Electronics - Development Perspectives, Świeradów-Zdrój 2014

59. R.Socha, M.Ślęzak, M.Szczepanik-Ciba, N.Spiridis, D.Wilgocka-Ślęzak, T.Giela, N.Pilet, J.Raabe, J.Korecki "CO oxidation on MnO/Pt(111) studied by XPS, TPD, XAS and PEEM", 30th European Conf. on Surface Science ECOSS 30, Antalya 2014

60. A.Stępniewski, K.Góra-Marek, M.Radoń, E.Brocławik "Influence of Ammonia Co-adsorption on Spin and Electron Transfer for Co(II) Sites in Zeolites: IR Studies on NO Activation and DFT Modeling", 6th FEZA Conf. Leipzig 2014

61. M.Szaleniec, P.Dyshlovenko, L.Szyk-Warszyńska, P.Warszyński "Description of protein adsorption in terms of colloidal interactions", COST Action CM1101 WG2 & WG5 Meeting Interactions in Colloidal Systems, Berlin 2014

62. M.Szaleniec, P.Dyshlovenko, L.Szyk-Warszyńska, P.Warszyński "Can we Describe Protein Adsorption in Terms of Electrostatic Interactions?", 28th Conf. of the European Colloid and Interface Soc. ECIS2014, Limassol 2014

63. M.Szaleniec, A.Rugor, J.Heider, T.Borowski, M.Witko "Monomolybdenum enzymes hydroxylating hydrocarbons – isotope experiments and modeling of mechanism", 15th Int. Conf. on Theoretical Aspects of Catalysis ICTAC15, London 2014

64. M.Szaleniec, A.Rugor, E.Niedziałkowska, A.Dudzik, M.Tataruch, D.Knack "Biocatalytic Hydroxylation of Cholesterol and Its Derivatives", Conf. Life Science Open Space 2014, Kraków 2014

65. M.Szczepanik-Ciba, M.Ślęzak, T.Giela, D.Wilgocka-Ślęzak, N.Pilet, J.Raabe, N.Spiridis, J.Korecki "LEEM/PEEM investigation of epitaxial metal and oxide manganese nanostructures on W(110)", European Conf. on Surface Science ECOSS 30, Antalya 2014

66. K.Szczepanowicz, A.Karabasz, M.Bzowska, S.Łukasiewicz, P. Warszyński "Targeted drug delivery system based on polyelectrolyte nanocapsules", COST Action CM1101 WG3 & WG4 Meeting Synthesis of advanced nano- and bio-colloidal materials with highly active surfaces, Belgrade 2014

67. K.Szczepanowicz, S.Łukasiewicz, M.Dziedzicka-Wasylewska, P.Warszyński "Encapsulated emulsion droplets as drug carriers", Conf. Smart and Green Interfaces, Marseille 2014

68. K.Szczepanowicz, M.Piotrowski, K.Podgórna, M.Łapczyńska, T.Kruk, L.Szyk-Warszyńska, P.Warszyński "Multiwarstwy polielektrolitów w układach dostarczania leków", Semin. Projektu POIG FUNANO 2014, Krakow 2014

69. T.Szumełda, A.Drelinkiewicz, R.Kosydar, J.Gurgul, E.Bielańska "Wplyw zawartosci Au w katalizatorach bimetalicznych PdAu/C otrzymanych metoda 'odwróconej mikroemulsji' na selektywnośc w reakcji uwodorniania aldehydu cynamonowego", 2. Ogolnopolskie Forum Chemii Nieorganicznej, Wrocław 2014

70. M.Ślęzak, T.Giela, D.Wilgocka-Ślęzak, N.Spiridis, T.Ślęzak, A.Kozioł-Rachwał, M.Zając, M.Stankiewicz, N.Pilet, J.Raabe, P.Warnicke, C.Quitmann, J.Korecki "Prospects of X-ray Photoemission Electron Microscopy at the first beamline of Polish synchrotron SOLARIS", 12th Int. Symp. & School on Synchrotron Radiation in Natural Science ISSRNS-12, Warszawa 2014

71. M.Śliwa, R.Grabowski, A.Żelazny, A.Kornas, K.Samson, M.Ruggiero-Mikołajczyk, J.-F.Paul, D.Rutkowska-Żbik "Influence of polymorphic ZrO_2 phases and the copper electronic state on the activity of Cu/ZrO_2 catalysts in the hydrogenation of CO_2 to methanol", 3rd Int. Symp. on Air & Water Pollution Abatement Catalysis AWPAC, Kraków 2014

72. S.Świątek, B.Jachimska "Charakterystyka funkcjonalnych warstw wołowej β-laktoglobuliny (LGB)", I Semin. Naukowe Zielone Idee 21. Wieku, Poznań 2014

73. M.Tataruch, M.Szaleniec, A.Bogusławska, P.Nowak, J.Bryjak, J.Heider "Application studies on synthesis of chiral alcohols by ethylbenzene dehydrogenase", 7th Int. Congr. on Biocatalysis BIOCAT 2014, Hamburg 2014

74. R.Tokarz-Sobieraj, R.Gryboś, M.Witko, A.Micek-Ilnicka, U.Filek, A.Bielański "Generation of acidic sites in Al, Ga, In salts of molybdenum and tungsten heteropolyacids. DFT modeling and catalytic tests", 3rd Int. Symp. on Air & Water Pollution Abatement Catalysis AWPAC, Kraków 2014

75. R.Tokarz-Sobieraj, R.Gryboś, M.Witko, U.Filek, A.Micek-Ilnicka, A.Bielański "Al, Ga, In salts of tungsten and molybdenum heteropolyacids - theory vs. experiment", 12th Panonnian Symp. on Catalysis, Trest 2014

76. T.Wilkosz, A.Wesełucha-Birczyńska, J.Dutkiewicz, E.Bielańska, J.Camra, L.Lityńska-Dobrzyńska, P.Kornelak, M.Najbar "Rola powinowactwa do tlenu i temperatur Tammanna metali w projektowaniu monolitycznych katalizatorów środowiskowych na folii ze stali kwasoodpornej, do redukcji tlenków azotu", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

77. P.Wolski, T.Pańczyk "Molecular dynamics simulations of interactions of congo red with single-walled carbon nanotubes", Central European School on Physical Organic Chemistry, Przesieka 2014

78. A.Wójcik, E.Brocławik, P.E.M.Siegbahn, T.Borowski "How subtle differences in enzyme structures affect the reaction outcome? Theoretical studies on HMS and HPPD", 46. Ogólnopolskie Kolokwium Katalityczne, Kraków 2014

79. M.Zając, A.Bianco, C.J.Bocchetta, E.Busetto, P.Goryl, J.Korecki, M.Sikora, M.J.Stankiewicz, M.Ślęzak, A.I.Wawrzyniak, Ł.Żytniak "First bending magnet beamline at Solaris", 12th Int. Symp. & School on Synchrotron Radiation in Natural Science ISSRNS-12, Warszawa 2014

80. J.Zawała, D.Kosior, K.Małysa "Influence of surface-active substance on kinetics of the bubble attachment to hydrophobic solids", XIVth Polish- Ukrainian Symp. on Theoretical and Experimental Studies of Interfacial Phenomena and Their Technological Applications & 1st NanoBioMat Conf. Nanostructured Biocompatible/Bioactive Materials, Zakopane 2014

81. J.Zawała, D.Kosior, A.Niecikowska, K.Małysa "Surface charge and kinetics of the three-phase contact formation at hydrophobic and hydrophilic solids", 15th Int. Conf. Surface Forces, Verbilki 2014

82. A.Żelazny, K.Samson, R.Grabowski, M.Ruggiero-Mikołajczyk, M.Śliwa, D.Rutkowska-Żbik, A.Kornas, M.Lachowska "Influence of the carrier on physicochemical and catalytic properties of Cu-Ag/oxide catalysts for selective hydrogenolysis of glycerol to propylene glycol", 12th Panonnian Symp. on Catalysis, Trest 2014

2015

Plenary, keynote and invited lectures

1. Z.Adamczyk "Protein Adsorption - A new paradigm", 15th Int. Conf. on Nanotechnology IEEE NANO 2015, Rome 2015

2. T.Borowski, M.Quesne, A.Miłaczewska, Z.Wojdyła, A.Wójcik "Reaction mechanisms of mononuclear metalloenzymes", Conf. Modeling Interactions in Biomolecules VII, Prague 2015

3. J.Heider, M.Szaleniec "Oxygen-independent hydrocarbon hydroxylation reactions by molybdenum enzymes: ethylbenzene dehydrogenase and family", 9th Molybdenum and Tungsten Enzymes Conf., Balatonfured 2015

4. J.Korecki "Structural and electronic properties of ultrathin iron oxide films on Pt(111): from FeO to Fe_2O_3", COST Action CM1104 WG1+WG2 Workshop, Kraków 2015

5. J.Korecki "Spektro-mikroskopia z użyciem miękkiego promieniowania X w 'Solaris'", 43. Zjazd Fizyków Polskich, Kielce 2015

6. M.Kujda, Z.Adamczyk; "Physicochemical characteristics of albumin dimer and its monolayers", Conf. Suspensions -designing, synthesis, properties, application SUSPENS, Krakow 2015

7. P.Niemiec, R.Tokarz-Sobieraj, R.Gryboś, A.Micek-Ilnicka, U.Filek, A.Kirpsza, M.Witko "Catalytic activity of selected heteropolyacids. Theory vs. experiment", Conf. 'Multiscale phenomena in molecular matter', Krakow 2015

8. P.Nowak, M.Mosiałek, G.Nawrat "Corrosion of magnesium and its alloys - new observations and ideas"; 18. Ogólnopolskie Symp. Naukowo-Techniczne APCS-2015 'Nowe Osiągnięcia w Badaniach i Inżynierii Korozyjnej', Poraj 2015

9. T.Pańczyk, P.Wolski, Ł.Kończak "Nanorurki węglowe jako nośniki leków. Projektowanie na podstawie modelowania molekularnego", Konf. 40 lat Chemii Teoretycznej na Uniwersytecie Marii Curie-Skłodowskiej - Rozwój i Badania, Lublin 2015

10. M.Quesne "Utilizing QM/MM techniques inthe study of enzyme catalyses reaction mechanisms", 3rd Scientific Workshop of the COST Action CM1305 "Explicit control over spin states in technology and Biochemistry, Belgrade 2015

11. M.Quesne "How can theoretical techniques inform us of the chemistry of real world catalysts", RSC Inorganic Reaction Mechanisms Discussion Group Meeting, Manchester 2015

12. D.Rutkowska-Żbik, A.Drzewiecka-Matuszek, R.Tokarz-Sobieraj, J.Korecki, B.Szafran, A.Duschl, P.Queipo "Developing Nanotechnology Curricula to Meet Industry and Society Needs", EuroNanoForum 2015, Riga 2015

13. B.Sulikowski "Zeolites, nanoclusters and related mesoporous materials: an insight from solid-state NMR spectroscopy standpoint", 20. Forum Zeolitowe, Stryszawa 2015

14. M.Szaleniec, A.Dudzik, E.Niedziałkowska, A.Rugor, M.Tataruch "Bacterial dehydrogenases from *S. denitrificans* – biocatalytic tools for modification of sterols and steroids", Workshop on Agricultural Biotechnology and Biocatalysis, Warszawa 2015

15. M.Szaleniec, A.Dudzik, E.Niedziałkowska, A.Rugor, M.Tataruch, M.Wasylewski "Steroid C25 dehydrogenase – a novel catalyst for regioselective hydroxylation of cholesterol and its derivatives", World Congr. on Beneficial Microbes: Food, Pharma, Aqua & Beverages Industry, Valencia 2015

16. M.Szaleniec, M.Witko, J.Heider "Czy modelowanie teoretyczne jest wiarygodnym narzędziem do badania reaktywności enzymów?", 42. Ogólnopolska Szkoła Chemii 'Chemia z głębi ziemi', Lubenia 2015

17. K.Szczepanowicz, G.Para, L.Szyk-Warszyńska, K.A.Wilk, P.Warszyński "Role of surfactant/polimer complex in the formation of nanocapsules", Conf. 'Smart and Green Interfaces:Fundamentals and Diagnostics (SGI-FunD), D.Exerowa Symp.', Sofia 2015

18. T.Ślęzak, A.I.Chumakov, A.Kozioł-Rachwał, R.Ruffer, N.Spiridis, M. Ślęzak, M.Zając, J.Korecki "Resolving the complex spin structures with Nuclear Resonant Scattering", 22nd Int. Colloquium on Magnetic Films and Surfaces, Kraków 2015

19. M.Witko "Woman in Science; whether stereotype or feminizm", Humboldt-Kolleg Conf. 'Ethics in Science and Life', Toruń 2015

20. M.Witko "Instytut Katalizy i Fizykochemii Powierzchni PAN; Związki Kraków-Lublin", Konf. 40 lat Chemii Teoretycznej na Uniwersytecie Marii Curie-Skłodowskiej - Rozwój i Badania, Lublin 2015

Oral presentations

1. Z.Adamczyk "Protein Adsorption - a True Story", 15th European Student Colloid Conf., Krakow 2015

2. Z.Adamczyk "Mechanisms of Nanoparticle Deposition and Stability of Their Monolayers", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

3. Z.Adamczyk "Mechanizmy zjawisk adsorpcji i osadzania z fazy ciekłej na powierzchniach stałych", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

4. P.Batys, M.Nosek, P.Weroński "Analiza struktury wielowarstw cząstek koloidalnych", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

5. Ł.Bratasz, R.Kozłowski, M.Łukomski "Software for a quantitative assessment of risk of damage to objects vulnerable to climate variations", The Getty Conservation Institute Workshop "Epidemiology - basic ideas applied to museum collections", Waddesdon 2015

6. A.Bratek-Skicki, P.Żeliszewska, M.Cieśla, Z.Adamczyk "Określenie mechanizmu adsorpcji fibrynogenu na nośnikach koloidalnych", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

7. E.Brocławik "Density Functional Theory - basic concepts and applications", Workshop on molecular simulation and drug design, Warszawa 2015

8. E.Brocławik "Electronic structure of bioactive transition metal centers - introduction"; Workshop on molecular simulation and drug design, Warszawa 2015

9. E.Brocławik "Electronic structure of bioactive transition metal centers – advanced topics", Workshop on molecular simulation and drug design, Warszawa 2015

10. E.Brocławik, A.Stępniewski, M.Radoń "Ammonia-modified Co(II) centers in zeolites: spin and electron density redistribution through the CoII-NO bond", 3rd Scientific Workshop of the COST Action CM1305 "Explicit control over spin states in technology and Biochemistry, Belgrade 2015

11. E.Brocławik, A.Stępniewski, M.Radoń, K.Góra-Marek "Cobalt sites in zeolites: spin state as the gate controlling charge transfer channels"; 20. Forum Zeolitowe, Stryszawa 2015

12. D.Connell, B.Jachimska, V.A.Ferro, P.Mulheran "Development of a Potential Immunocontraceptive Nanomaterial Using Molecular Dynamics Simulations", Research Presentation Day, Glasgow 2015

13. M.Ćwięka, B.Jachimska "Nondestructive Characterization of Lysozyme Layers on Silica Surface using MP-Surface Plasmon Resonance and Quartz Crystal Microbalance", 15th European Student Colloid Conf., Krakow 2015

14. M.Ćwięka, B.Jachimska "LSZ adsorption on silica surface using the QCM-D and MP-SPR", Erasmus+ (KA1 – Mobilność edukacyjna) Meeting, Kraków 2015

15. A.Drelinkiewicz, E.Lalik, R.Kosydar, W.Rojek, T.Szumełda, M.Kołodziej, E.Bielańska "Pasywne autokatalityczne rekombinatory wodoru; idea, wady, zalety", Konf. 'Wybrane aspekty bezpieczeństwa elektrowni jądrowej w Polsce', Mądralin 2015

16. A.Drzewiecka-Matuszek, D.Rutkowska-Żbik, M.Witko "Insight into CpdII oxidation ability towards alcohols and aldehydes – mechanism and ligand effect", 9th Int. Symp. 'Surface Heterogeneity Effects in Adsorption and Catalysis on Solids ISSHAC-9', Wrocław 2015

17. M.Elżbieciak-Wodka, K.Kilan, T.Kruk, A.Pajor-Świerzy, K.Podgórna, K.Szczepanowicz, L.Szyk-Warszyńska, P.Warszyński "Nanostructured Materials Based On Polyelectrolyte Multilayers", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

18. P.Frączek, R.Kozłowski "Hans Memling *Sąd Ostateczny* – warunki środowiska w otoczeniu dzieła i jego stan zachowania", Symp. 'Wokół tryptyku Hansa Memlinga *Sąd Ostateczny*. Standardy ochrony i wypożyczania unikatowych dzieł sztuki', Gdańsk 2015

19. E.I.García-López, G.Marcì, F.R.Pomilla, L.Palmisano, A.Kirpsza, A.Micek-Ilnicka "Comparison between catalytic and photocatalytic activity in gas-solid regime of semiconductor oxides and carbon nanotubes supported Keggin heteropolyacid", 21st Int. Symp. on the Photochemistry and Photophysics of Coordination Compounds, Krakow 2015

20. R.Gryboś, J.Handzlik, F.Tielens "DFT study of Cr, Mo and W oxide monomers supported on silica", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

21. A.Y.Gyurova, A.Michna, E.Mileva "Self-assembly of four- and two-antennary oligoglycines in the bulk of aqueous medium", COST Action MP1106 'Smart and green interfaces - from single bubbles and drops to industrial, environmental and biomedical applications (SGI)', Belgrade 2015

22. K.Jóźwiak, K.Pająk, A.Płazińska, W.Płaziński, I.Wainer "Molecular mechanisms of functional selectivity of fenoterol derivatives towards the β2-adrenergic receptor", 26th Int. Symp. on Pharmaceutical and Biomedical Analysis", Tbilisi 2015

23. A.Kędra, R.P.Socha, J.Gurgul, Z.Starowicz, M.Lipiński, S.M.Hanetho, P.Dahl, T.Kruk, K.Łaba, K.Łątka, P.Warszyński "Wykorzystanie efektu plazmonowego na cząstkach metali do wzbudzenia emisji w konwerterach światła", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

24. A.Kędra, R.P.Socha, L.Szyk-Warszyńska, M.Zimowska, K.Szczepanowicz, Z.Starowicz, M.Lipiński, K.Łaba, P.Warszyński "Emission of light converters excited by plasmonic particles", 3rd Int. Congr. of Energy Efficiency and Energy Related Materials ENEFM2015, Oludeniz 2015

25. A.Kędra, P.Warszyński, R.P.Socha, L.Szyk-Warszyńska, J.Gurgul, K.Szczepanowicz, M.Zimowska, M.Lipiński, S.M.Hanetho, P.Dahl "Synteza i charakteryzacja konwerterów światła opartych na strukturze perowskitu", 6. Symp. 'Fotowoltaika i Transparentna Elektronika', Świeradów-Zdrój 2015

26. K.Kilan, G.J.Koper, P.Warszyński "Effect of cross-linking cations on permeation of alginate containing multilayered membranes", 15th Conf. of Int. Assoc. of Colloid and Interface Scientists and 47th Conf. of the German Colloid Society, Mainz 2015

27. H.W.Klemm, G.Peschel, E.Madej, A.Fuhrich, M.Timm, T.Schmidt, H.-J.Freund "Growth of ultrathin Silica Films on Ru(0001)", 79th Annual Meeting of DPG and DPG-Fruhjahrstagung of the Condensed Matter Section, Berlin 2015

28. A.Kornas, R.Grabowski, K.Samson, M.Ruggiero, A.Żelazny, M.Śliwa "Właściwości fizykochemiczne i katalityczne katalizatorów miedziowych w reakcji uwodornienia CO_2 w kierunku eteru dwumetylowego (DME)", 2. Ogólnokrajowa Konf. 'Młodzi Naukowcy w Polsce - Badania i Rozwój', Wrocław 2015

29. D.Kosior, J.Zawała, A.Niecikowska K.Małysa "Influence of surfactant polar group on the colliding bubble attachment to hydrophilic and hydrophobic solids", 6th Int. Workshop on Bubble and Drop Interfaces, Potsdam/Golm 2015

30. P.B.Kowalczuk, J.Zawała, A.Niecikowska, K.Małysa "Influence of short chain alkyl amine on flotation hydrophobicity and bubble attachmeny to the quartz surface", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

31. P.B.Kowalczuk, J.Zawała, A.Niecikowska, K.Małysa "Flotation, hydrophobicity and bubble attachment to the quartz surface in the presence of hexyloamine", 3rd Int. Conf. on Methods and Materials for Separation Processes SSTP 2015, Karpacz 2015

32. R.Kozłowski "Cementy romańskie: mechanizm wiązania, właściwości, problemy konserwatorskie", Konf. 'Cement w architekturze i sztuce', Toruń 2015

33. R.Kozłowski "Dezynsekcja zbiorów muzealnych w planowanym Centrum Konserwatorsko - Magazynowym w Krakowie", Warsztat Muzeum Narodowego w Krakowie i Narodowego Instytutu Muzealnictwa i Ochrony Zbiorów 'Ocena ryzyka w obszarze dziedzictwa kultury', Kraków 2015

34. R.Kozłowski "Wentylacja i ogrzewanie kościołów zabytkowych – niestabilność wilgotnościowa i brudzenie", Warsztat IKiFP PAN i Narodowego Instytutu Muzealnictwa i Ochrony Zbiorów 'Wpływ ogrzewania zabytkowych kościołów na przenoszenie i osadzanie pyłów', Warszawa 2015

35. T.Kruk, K.Szczepanowicz, P.Warszyński "Multifunctional hybrid ultrathin polyelectrolyte coatings", 7th Int. Workshop on Surface Modification for Chemical and Biochemical Sensing SMCBS 2015, Pułtusk 2015

36. T.Kruk, K.Szczepanowicz, P.Warszyński "Nanostrukturalne filmy polielektrolitowe jako funkcjonalne powłoki", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

37. M.Krzan, E.Jarek, E.Santini, H.Petkova, V.Ulaganathan, M.Lofti, A.Javadi, F.Ravera, R.Todorov, P.Warszyński, E.Mileva, R.Miller, D.Exerowa, L.Ligierri "Stable and biocompatible particle laden foams – the

influence of interfacial properties of the mixed adsorption layer on foam film stability and elasticity", Conf. 'Smart and Green Interfaces:Fundamentals and Diagnostics (SGI-FunD), D.Exerowa Symp.', Sofia 2015

38. M.Krzan, E.Jarek, P.Warszyński "Influence of inorganic electrolytes on bubble motion in CTAB an SHS solutions", 6th Int. Workshop on Bubble and Drop Interfaces, Potsdam/Golm 2015

39. M.Krzan, H.Petkova, E.Santini, E.Jarek, E.Mileva, P.Warszyński, R.Todorov, F.Ravera, L.Ligierri, D.Exerowa "Stable and biodegradable aqueous foams for industrial or biomedical applications", COST Action MP1106 'Smart and green interfaces - from single bubbles and drops to industrial, environmental and biomedical applications (SGI)', Belgrade 2015

40. K.Kubiak, Z.Adamczyk, M.Oćwieja "Osadzanie nanocząstek srebra na modyfikowanej powierzchni SiO2 – badania QCM oraz SEM", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

41. K.Kubiak, Z.Adamczyk, M.Oćwieja "In situ QCM-D investigation of silver nanoparticle monolayer formation on polycation modified surfaces", 15th European Student Colloid Conf., Krakow 2015

42. K.Kubiak, Z.Adamczyk, M.Oćwieja, M.Zimowska "Formation of silver nanoparticle monolayers on PAH modified surfaces- QCM and SEM studies", Wrocławska Konf. Studentów Nauk Technicznych i Ścisłych PUZZEL, Wrocław 2015

43. A.Kupczak, Ł.Lasyk, Ł.Bratasz, R.Kozłowski, M.Łukomski "Risk index calculator – a software tool for a quantitative assessment of risk of physical damage to objects vulnerable to climate variations", 1st Int. Conf. on Science and Engineering in Arts, Heritage and Archaeology, London 2015

44. A.Kupczak, Ł.Lasyk, Ł.Bratasz, M.Łukomski, A.Działo, R.Kozłowsk, "HERIe – oprogramowanie do ilościowej oceny zagrożenia obiektów zabytkowych przez wahania parametrów klimatycznych", 15. Konf. 'Analiza Chemiczna w Ochronie Zabytków ACHWOZ'15', Warszawa 2015

45. M.Kujda, Z.Adamczyk "Physicochemical characteristics of albumin dimer and its monolayers on solid surfaces - electrokinetic studies", 15th European Student Colloid Conf., Krakow 2015

46. D.Lupa, M.Oćwieja, Z.Adamczyk "Kinetics od silver ion release from nanopraticles of controlled surface properties", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

47. M.Łapczyńska, M.Piotrowski, D.Jantas, K.Szczepanowicz, P.Warszyński "Synthesis of the PCL nanoparticles containing neuroprotectants from oil-in-water nanoemulsion by phase inversion emulsification method", 15th European Student Colloid Conf., Krakow 2015

48. M.Łapczyńska, M.Piotrowski, D.Jantas, P.Warszyński, K.Szczepanowicz "Phase inversion emulsification as a method of synthesis PCL nanoparticles containing neuroprotectants for drug delivery systems", 6th Int. Workshop on Bubble and Drop Interfaces, Potsdam/Golm 2015

49. M.Łapczyńska, K.Szczepanowicz, M.Piotrowski, D.Jantas, P.Warszyński "The PCL nanoparticles as neuroprotectants-loaded nanocarriers for brain drug delivery", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

50. J.Maciejewska, M.Oćwieja, Z.Adamczyk, E.Bielańska, B.Napruszewska "Titanium dioxide/silver nanopraticle bilayers prepared in self-assembly processes", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

51. D.Majda, K.Tarach, K.Góra-Marek, A.Michalik-Zym, B.D.Napruszewska, M.Zimowska, E.M.Serwicka "Thermoporosimetry of n-alkanes for characterization of mesoporous SBA-15 silicas", 3rd Central and Eastern European Conf. on Thermal Analysis and Calorimetry CEEC-TAC3, Ljubljana 2015

52. M.Mosiałek, M.Krzan, M.Tatko, E.Bielańska, A.Kędra, A.Michna, E.Czerlunczakiewicz "Composite cathode materials for solid oxide fuel cells", 14th E-MRS Conf. 'Composites and ceramic materials - technology, application and testing", Białowieża 2015

53. M.Nattich-Rak, Z.Adamczyk, M.Sadowska "Określenie konformacji fibrynogenu na podstawie pomiarów adsorpcji mikrocząstek polimerycznych". 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

54. A.Niecikowska, A.Wiertel, J.Zawała, K.Małysa "Effect of the bubble dimensions and the shape deformation degrees on its coalescence time at free water surface", 15th European Student Colloid Conf., Krakow 2015

55. P.Niemiec, R.Tokarz-Sobieraj, M.Witko "Właściwości utleniające modyfikowanych heteropolikwasów molibdenowych i wolframowych. Obliczenia DFT", 47. Ogólnopolskie Kolokwium Katalityczne, Kraków 2015

56. P.Nowak "Polarization resistance of corroding magnesium alloys", Conf. 'Antykorozja - Systemy-Materiały-Powłoki", Ustroń-Jaszowiec 2015

57. M.Oćwieja "Synteza i stabilność nanocząstek metali oraz ich monowarstw", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

58. M.Oćwieja, A.Gorczyca, E.Pociecha, Z.Adamczyk "The influence of stabilizing agent molecules on the biological activity of silver nanoparticles", 7. Krajowa Konf. Nanotechnologii, Poznań 2015

59. A.Olejniczak, M.Leżańska, A.Pacuła, P.Nowak, J.Włoch, J.P.Łukaszewicz "Hydrogel-based synthesis from sustainable biopolymers of nitrogen-doped mesoporous carbons with high capacitive performance", Annual World Conf. on Carbon - CARBON 2015, Dresden 2015

60. H.Pálková, M.Zimowska, L.Jankovič, B.Sulikowski, E.M.Serwicka J.Madejová "Stability of tetrabutyl-phosphonium and -ammonium modified montmorillonite in inorganic acid", European Clay Conf. Euroclay 2015, Edinburgh 2015

61. K.Pamin, J.Połtowicz, S.Basąg, W.Kubiak, R.Tokarz-Sobieraj "Glycerol as solvent in phenol oxidation with hydrogen peroxide - reaction mechanism", 7th Int. Conf. on Green and Sustainable Chemistry; 4th JACI/GSC Symp. Tokyo 2015

62. K.Pamin, J.Połtowicz, N.Wolan, R.Tokarz-Sobieraj, A.Adamski "Glycerol as alternative solvent in phenol oxidation catalyzed by macrocyclic metallocomplexes with hydrogen peroxide", 3rd Int. Symp. on Green Chemistry, La Rochelle 2015

63. T.Pańczyk, Ł.Kończak, P.Wolski "Influence of Sidewall Functionalization of Carbon Nanotubes on Adsorption of Magnetic Nanoparticles. Molecular Dynamics Study", 9th Int. Symp. 'Surface Heterogeneity Effects in Adsorption and Catalysis on Solids ISSHAC-9', Wrocław 2015

64. T.Pańczyk, P.Wolski, Ł.Kończak "Carbon nanotubes as drug delivery systems. Insights from molecular simulations", 7. Konwersatorium Chemii Medycznej & 8. Symp. PTBI, Lublin 2015

65. G. Para, J.Łuczyński, J.Palus, E.Jarek, K.A.Wilk, P.Warszyński "Adsorption of Cleavable Esterquad Surfactants and Polyelectrolytes at the Air/water Interface", COST Action MP1106 'Smart and green interfaces - from single bubbles and drops to industrial, environmental and biomedical applications (SGI)', Belgrade 2015

66. S.Perni, T.Kruk, P.Warszyński, P.Prokopovich "Coating of polymeric materials with silver nanoparticles using LbL for antimicrobial catheters", 29th Conf. of the European Colloid and Interface Society ECIS, Bordeaux 2015

67. A.Płazińska, W.Płaziński, K.Rolak-Piwowarska, K.Jóźwiak "The influence of the β2-adrenergic receptor genetic polymorphism on the interactions with agonists. A molecular modeling study", 7. Konwersatorium Chemii Medycznej & 8. Symp. PTBI, Lublin 2015

68. W.Płaziński, A.Płazińska, M.Drach "Water-catalyzed mechanism of the ring-opening reaction of glucose". 3rd Conf. on Catalysis, Suzhou 1015

69. W.Płaziński, A.Płazińska, M.Drach "Mechanism of the water-assisted ring-opening reaction in hexopyranoses". 7. Konwersatorium Chemii Medycznej & 8. Symp. PTBI, Lublin 2015

70. K.Podgórna, K.Szczepanowicz, A.Karabasz, M.Bzowska, J.Korecki, E.Bielańska, P.Warszyński "Synthesis of polyelectrolyte nanocapsules with iron oxide nanoparticles for magnetic targeting", 15th European Student Colloid Conf., Krakow 2015

71. K.Podgórna, K.Szczepanowicz, A.Karabasz, M.Bzowska, J.Korecki, P.Warszyński "Preparation and characterization of polyelectrolyte nanocapsules with iron oxide nanoparticles for magnetic targeting", 6th Int. Workshop on Bubble and Drop Interfaces, Potsdam/Golm 2015

72. K.Podgórna, K.Szczepanowicz, A.Karabasz, M.Bzowska, J.Korecki P.Warszyński "Synthesis and characterization of Gadolinium-Alginate nanogels for biomedical applications", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

73. M.Radoń, K,Gąssowska, E.Brocławik, J.Szklarzewicz "Spin-state energetics of transition metal complexes: the importance and the challenge", 15th Central European Symp. on Theoretical Chemistry, Banska Bystrica 2015

74. W.Rojek, T.Machej, K.Samson, M.Śliwa, M.Ruggiero-Mikołajczyk, R.Grabowski, D.Rutkowska-Żbik "Katalizatory chromitowe jako katalizatory reakcji hydrogenolizy alkoholu furfurylowego", 47. Ogólnopolskie Kolokwium Katalityczne, Kraków 2015

75. A.Rugor, A.Dudzik, M.Guzik, J.Staroń, T.Janeczko, M.Szaleniec "Biokatalityczna funkcjonalizacja steroli i steroidów", Konf. Life Science Open Space 2015, Kraków 2015

76. A.Rugor, T.Janeczko, A.Dudzik, J.Staroń, A.Bojarski, M.Szalenie "Selective modifications of steroids and sterols performed by enzymes from Sterolibacterium denitrificans", 47. Ogólnopolskie Kolokwium Katalityczne, Kraków 2015

77. A.M.Rugor, A.Wójcik, S.Mordalski, J.Staroń, A.Bojarski, M.Szaleniec "Insight into structure and reactivity of steroid C25 dehydrogenase, a molybdenum enzyme hydroxylating sterols", 9th Molybdenum and Tungsten Enzymes Conf., Balatonfured 2015

78. D.Rutkowska-Żbik, M.Witko, R.Tokarz-Sobieraj, Ł.Orzeł, G.Stochel "Transmetylacja porfiryn – kwantowo-chemiczne badania mechanizmu reakcji. Katalityczny wpływ jonów octanowych.", 47. Ogólnopolskie Kolokwium Katalityczne, Kraków 2015

79. P.Sazama, J.Janoščova, Ł.Mokrzycki, V.I.Parvulescu, E.Tabor, A.Vondrova, D.Kaucky, P.Klein "Enhancement of density of active sites and reaction rates for acid and redox catalysed reactions over zeolite catalysts", 6th CIS Conference on Molecular Sieves and Catalysis, Amantea 2015

80. P.Sazama, L.Mokrzycki, V.I.Parvulescu, E.Tabor, A.Vondrova, D.Kaucky, P.Klein "Enhancement of concentration and functionality of active sites in zeolite based catalysts for acid and redox catalysed reactions", 6th Int. Symp. on Advanced Micro- and Mesoporous Materials, Sunset Resort 2015

81. M.Smolik, A.Marczakiewicz-Lustig, B.Jachimska, A.Sawina, D.Dudek, J.Hartwich, "VLDL5 as a biomarker related to Obesity", 10th Bialystok Int. Medical Congr. Young Scientists, Białystok 2015

82. R.P.Socha, A.Kędra, M.Zimowska, P.Panek, J.Barbasz, L.Szyk-Warszyńska, P.Warszyński "Zależność stanu chemicznego i morfologii powierzchni krzemu od katalizatora użytego do jego teksturyzacji w procesie MAE", 6. Symp. 'Fotowoltaika i Transparentna Elektronika', Świeradów-Zdrój 2015

83. Z.Starowicz, A.Kędra, G.Kulesza-Matlak, R.P.Socha, M.Lipiński "Symulacyjne i eksperymentalne badanie plazmonicznych nanocząstek srebra do zastosowań na przedniej stronie cienkowarstwowego ogniwa krzemowego", 6. Symp. 'Fotowoltaika i Transparentna Elektronika', Świeradów-Zdrój 2015

84. Z.Starowicz, A.Kędra, G.Kulesza-Matlak, R.P.Socha, M.Lipiński "Wytwarzanie i charakteryzacja struktur plazmonicznych do zastosowań w fotowoltaice", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

85. A.Stępniewski, E.Brocławik, T.Bucko, L.Benco "Spin states of cobalt active sites in zeolites and their influence on the ability of Co centers to activate NO ligand (DFT periodic modeling)", 3rd Scientific Workshop of the COST Action CM1305 "Explicit control over spin states in technology and Biochemistry, Belgrade 2015

86. M.Strojecki "Źródła pyłów i ich osiadanie w zabytkowych kościołach – metodyka pomiarów", Warsztat IKiFP PAN i Narodowego Instytutu Muzealnictwa i Ochrony Zbiorów 'Wpływ ogrzewania zabytkowych kościołów na przenoszenie i osadzanie pyłów', Warszawa 2015

87. M.Strojecki "Źródła pyłów i ich osiadanie – studium 'epidemiologiczne' 12 różnych świątyń polskich", Warsztat IKiFP PAN i Narodowego Instytutu Muzealnictwa i Ochrony Zbiorów 'Wpływ ogrzewania zabytkowych kościołów na przenoszenie i osadzanie pyłów', Warszawa 2015

88. M.Strojecki, A.Mleczkowska, Ł.Bratasz, R.Kozłowski "Aerosol sources and deposition in the indoor environment of historic churches", European Aerosol Conf., Milano 2015

89. M.Strojecki, A.Mleczkowska, Ł.Bratasz, R.Kozłowski "Particle sources and deposition in the indoor environment of historic churches", 1st Int. Conf. on Science and Engineering in Arts, Heritage and Archaeology, London 2015

90. B.Sulikowski, K.Onik, M.Gackowski, A.Dziedzicka, P.Warszyński, M.Derewiński "^{29}Si and ^{27}Al NMR studies of protozeolitic nanoclusters and related layered materials", 6th Int. Symp. on Advanced Micro- and Mesoporous Materials, Sunset Resort 2015

91. B.Szafran, P.Wójcik, B.Spisak, K.Griffin, D.Rutkowska-Żbik, P.Queipo, T.Zazdrozny, C.Kiparissides, O.Kammona, F.Ntow, S.Friedrichs, A.Duschl "Who will producethe safe nanomaterials? University teaching contet in nanotechnology studies does not match job skill demands in the nanotechnology industry", Int. Congr. on Safety of Engineered Nanoparticles and Nanotechnologies, Helsinki 2015

92. M.Szaleniec, J.Heider "QM:MM study of the ethylbenzene dehydrogenase reaction mechanism", 9th Molybdenum and Tungsten Enzymes Conf., Balatonfured 2015

93. M.Szaleniec, D.Knack, J.Heider "Enzymatic C-C bond formation by benzylsuccinate synthases: a theoretical study of the reaction mechanism", 47. Ogólnopolskie Kolokwium Katalityczne, Kraków 2015

94. K.Szczepanowicz "Polielektrolitowe nanokapsułki jako nośniki leków", Konf. Life Science Open Space 2015, Kraków2015

95. K.Szczepanowicz, M.Bzowska, A.Karabasz, T.Kruk, J.Bereta, P.Warszyñski "Pegylated polyelectrolyte nanocapsules as anticancer drug vehicles for passive targeting", Conf. 'Smart and Green Interfaces:Fundamentals and Diagnostics (SGI-FunD), D.Exerowa Symp.', Sofia 2015

96. K.Szczepanowicz, A.Z.Karabasz, M.Bzowska, P.Warszyński "Polyelectrolyte nanocapsules – promising drug delivery system", 29th Conf. of the European Colloid and Interface Society ECIS, Bordeaux 2015

97. K.Szczepanowicz, S.Łukasiewicz, E.Błasiak, M.Dziedzicka-Wasylewska, P.Warszyński "Biocompatible Polymeric Nanoparticles as a Promising Candidates for Drug Delivery", 15th Conf. of Int. Assoc. of Colloid and Interface Scientists and 47th Conf. of the German Colloid Society, Mainz 2015

98. K.Szczepanowicz, K.Podgórna, M.Piotrowski, T.Kruk, P.Warszyński, A.Karabasz "Targeted drug delivery systems based on polyelectrolyte nanocapsules", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

99. S.Świątek, B.Jachimska "Studies of bovine β-lactoglobulin isoform adsorption on gold surface using the quartz crystal microbalance", Erasmus+ (KA1 – Mobilność edukacyjna) Meeting, Kraków 2015

100. S.Świątek, J.I.Loch, K.Lewiński, B.Jachimska "Funkcjonalne warstwy wołowej β-laktoglobuliny jako nośniki biomoleku", 5. Konf. Doktorantów Uniwersytetu Jagiellońskiego, Kraków 2015

101. K.Tokarczyk, B.Jachimska "Interactions between albumin and dendrimers", Erasmus+ (KA1 – Mobilność edukacyjna) Meeting, Kraków 2015

102. K.Tokarczyk, B.Jachimska "Oddziaływania albuminy z dendrymermi typu PAMAM", 5. Konf. Doktorantów Uniwersytetu Jagiellońskiego, Kraków 2015

103. R.Tokarz-Sobieraj, P.Niemiec, M.Witko "Oddziaływania heteropolikwasów modyfikowanych metalami przejściowymi z rozpuszczalnikiem i reaktywnymi formami tlenu", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

104. R.Tokarz-Sobieraj, P.Niemiec, M.Witko, K.Pamin "Geometric Environment vs. Adsorption Properties of Transition Metal Ions Introduced in HPA. DFT Calculations", 9th Int. Symp. 'Surface Heterogeneity Effects in Adsorption and Catalysis on Solids ISSHAC-9', Wrocław 2015

105. G.Trefalt, F.J.Montes Ruiz-Cabello, M.Moazzami-Gudarzi, M.Elzbieciak-Wodka, P.Maroni, C.Labbez, M.Borkovec "Interactions between Charged Surfaces in the Presence of Multivalent Ions: Comparison of Counterions and Coions", 29th Conf. of the European Colloid and Interface Society ECIS, Bordeaux 2015

106. V.Valmacco, M.Elżbieciak-Wodka, G.Trefalt, P.Maroni, M.Borkovec "Tuning the properties of silica surfaces by heat treatment", 29th Conf. of the European Colloid and Interface Society ECIS, Bordeaux 2015

107. P.Warszyński, P.Dyshlovenko "Effect of lateral forces on adsorption and maximal coverage of nanoparticles on oppositely charged interface", WG2,5,5, COST CM1101, Meeting, Marcule 2015

108. P.Warszyński, P.Dyshlovenko "Effect of lateral forces on adsorption and maximal coverage of nanoparticles on oppositely charged interface", 15th Conf. of Int. Assoc. of Colloid and Interface Scientists and 47th Conf. of the German Colloid Society, Mainz 2015

109. M.Wasilewska, Z.Adamczyk, M.Nattich-Rak "Charakterystyka monowarstw fibrynogenu na mice przy pomocy metod elektrokinetycznych i wzmocnienia koloidalnego", Sem. 'Na granicy powierzchni i światła: Adsorpcja i spektroskopia SERS', Kraków 2015

110. P.Weroński, M.Nosek, P.Batys, M.Skoczek "Application of Rotating Disk Electrode Technique in Studies of Supported Thin Films of Spherical Particles", 7th Int. Workshop on Surface Modification for Chemical and Biochemical Sensing SMCBS 2015, Pułtusk 2015

111. M.Witko, P.Niemiec, R.Tokarz-Sobieraj, R.Gryboś, A.Micek-Ilnicka, U.Filek, A.Kirpsza "Catalytic activity of selected heteropolyacids. Theory vs. experiment", Conf. 'Multiscale phenomena in molecular matter', Krakow 2015

112. M.Wlodek, M.Kolasinska-Sojka, M.Szuwarzynski, Sz.Zapotoczny, R.von Klitzing, P.Warszyński "Effect of supporting cushion materials and deposition conditions on the formation of POPC/POPE lipid bilayers", 29th Conf. of the European Colloid and Interface Society ECIS, Bordeaux 2015

113. M.Włodek, M.Kolasińska-Sojka, P.Warszyński "Formation of POPC/POPE lipid bilayers on polyelectrolyte films. Influence of supporting cushion materials and deposition conditions", 58. Zjazd Polskiego Towarzystwa Chemicznego, Gdańsk 2015

114. J.Yu, K.Zurcher, G.Schlottig, M.Baum, M.M.Visser Taklo, B.Wunderle, P.Warszyński, T.Brunschwiler "Nanoparticle assembly and sintering towards all-copper flip chip interconnects", IEEE 65th Electronic Components and Technology Conf. (IEEE-ECTC), San Diego 2015

115. J.Zawała, S.Dorbolo, K.Małysa "The bubble bouncing from stagnant and vibrating hydrophilic and hydrophobic solid surfaces", COST Action MP1106 'Smart and green interfaces - from single bubbles and drops to industrial, environmental and biomedical applications (SGI)', Belgrade 2015

116. J.Zawała, D.Kosior, K.Małysa "On importance of thin liquid films in kinetics of the bubble bouncing and collision with interfaces", Conf. 'Smart and Green Interfaces:Fundamentals and Diagnostics (SGI-FunD), D.Exerowa Symp.', Sofia 2015

117. J.Zawała, D.Kosior, K.Małysa "Modelling of influence of surface mobility on bubble rising velocity and kinetics of three-phase contact formation", Conf. 'Smart and Green Interfaces:Fundamentals and Diagnostics (SGI-FunD), D.Exerowa Symp.', Sofia 2015

118. J.Zawała, K.Małysa "Influence of surface vibrations on kinetics of the bubble coalescence and attachment", 10th Summer School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2015

119. J.Zurcher, C.Xi, B.R.Burg, S.Zimmermann, T.Brunschwiler, H.Guo, A.R.Studart, G.Potasiewicz, P.Warszyński "Enhanced thermal underfills by bridging nanoparticle assemblies in percolating microparticle beds", IEEE 15th Int. Conf. on Nanotechnology (IEEE-NANO), Rome 2015

120. J.Zürcher, S.Zimmermann, B.R.Burg, R.Strässle, X.Chen, G.Potasiewicz, P.Warszyński, C.Hofmann, M.Baum, T.Brunschwiler "Enhanced thermal underfills by bridging nanoparticle assemblies in percolating microparticle beds", 20th European Microelectronics and Packaging Conf. & Exhibition (EMPC 2015), Friedrichshafen 2015

121. A.Żelazny, K.Samson, R.Grabowski, M.Śliwa, M.Ruggiero, K.Pamin, A.Kornas, K.Gołąbek "Ag-Cu/M_xO_y catalysts for selective glycerol hydrogenolysis: role of the catalyst composition and reaction conditions", 7th Int. Conf. on Green and Sustainable Chemistry; 4th JACI/GSC Symp. Tokyo 2015

2016

Plenary, keynote and invited lectures

1. Z.Adamczyk "Mechanisms of noble metal monolayer formation at solid substrates", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

2. E.Błasiak, S.Łukasiewicz, K.Szczepanowicz, P.Warszyński, M.Dziedzicka-Wasylewska "Biocompatible polymeric nanoparticles as promising candidates for drug delivery", 2nd Central European Biomedical Congr. CEBC, Krakow 2016

3. Ł.Bratasz, R.Kozłowski, M.Łukomski "HERIe – a decision-supporting tool based on quantitative assessment of damage risk", Seminar & Symp. 'The Mechanics of Art Materials and its Future in Heritage Science', The Smithsonian Institution, Washington DC 2016

4. A.Drelinkiewicz, E.Lalik, R.Kosydar "Efekty termiczne reakcji z udziałem wodoru; wyzwanie dla technologii OZE", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

5. B.Jachimska, K.Tokarczyk "Dendrimers as a platform for designing biologically active carriers", Nanomaterials for Technology Workshop, Glasgow2016

6. D.Jantas, M.Piotrowski, M.Leśkiewicz, M.Regulska, J.Staroń, P.Warszyński, W.Lasoń, K.Szczepanowicz "Neuroprotective activity of (bio)polyelectrolyte-coated nanocapsules containing curcumin", 2nd Central European Biomedical Congr. CEBC, Krakow 2016

7. M.Kowacz, M.Marchel, L. Juknaité, J.M.S.S.Esperança, M.J.Romão, A.L.Carvalho, L.P.N.Rebelo, P.Warszyński "Effect of infrared light on protein interfacial water. Consequences for protein self-assembly and protein-surface intercation", 11ᵗh Conf. on Physics, Chemistry and Biology of Water, Sofia 2016

8. M.Kowacz, M.Marchel, L.Juknaité, A.Mukhopadhyay, A.L.Carvalho, J.M.S.S.Esperança, M.J.Romão, L.P.N.Rebel "Ionic liquids - water interplay in protein crystallization. From additives to nucleants to…", 16th Int. Conf. on Crystallization of Biological Macromolecules, Prague 2016

9. R.Kozłowski "Shared understanding facilitates decision making", Global Colloquium of University Presidents 'Preservation of Cultural Heritage: Challenges and Strategies', New Haven. MA 2016

10. R.Kozłowski, A.Kupczak, Ł.Lasyk, A.Działo, Ł.Bratasz, M.Łukomski "HERIe - a web-based software for assessing risk of climate-induced damage to painted wood", Conf. 'Wood Science and Technology II, Microclimates for Panel Paintings', SRAL Art conservation and research, Maastricht 2016

11. K.Malysa "On importance of thin liquid films in the colliding bubble attachment to solid surfaces of different hydrophobicity – a review", Mineral Engineering Conf. MEC2016, Swieradów-Zdrój 2016

12. A.Micek-Ilnicka "Heteropolizwiązki – ich osobliwe właściwości fizykochemiczne, katalityczne i fotokatalityczne", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

13. T.Pańczyk, Ł.Kończak, P.Wolski "Colloid nanoparticles and carbon nanotubes. What can we learn about their biomedical application from molecular dynamics simulations", Conf. 'Physics of Liquid Matter: Modern Problems PLMMP-2016', Kyiv 2016

14. E.M.Serwicka "Wpływ wykładów Prof. Bielańskiego na formowanie zainteresowań naukowych – refleksja własna", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

15. Z.Starowicz, H.Kazimierczak, R.P.Socha, K.Berent, M.Lipiński "The effect of the process parameters on microstructure of sliver nanoparticles photochemically deposited on titanium dioxide", 2016 E-MRS Spring Meeting, Lille 2016

16. M.Szaleniec ,A.Rugor, A.Wójcik "Steroid C25 Dehydrogenase, the Bocatalyst for Production of Calcifediol and 25-Hydroxycholesterol", 3rd Symp. on Biotransformations for Pharmaceutical and Cosmetic Industry, Warszawa 2016

17. M.Szaleniec, M.Witko, T.Borowski, J.Heider "Is the theoretical modeling a reliable tool for studying the reaction mechanisms of enzymes?", 5th Int. Conf. of Biophysics Students, Kraków 2106

18. K.Szczepanowicz, K.Podgórna, M.Piotrowski, P.Warszyński "Synthesis and properties of polyelectrolyte-coated nanocapsules", 2nd Central European Biomedical Congr. CEBC, Krakow 2016

19. J.Ślusarczyk, K.Szczepanowicz, M.Leskiewicz, M.Regulska, P.Warszyński, W.Lason, A.Basta-Kaim "Evaluation of protective action of polydatin, free form and in nanocapsules, in the hippocampal organotypic cultures treated with lipopolisaccharide", 2nd Central European Biomedical Congr. CEBC, Krakow 2016

20. S.P.de Visser, A.S.Faponle, M.G.Quesne, T.Borowski "Quantum mechanics/molecular mechanics studies of cytochrome P450 peroxygenases for the biosynthesis of biofuels", 16th Int. Conf on Theoretical Aspects of Catalysis, Zakopane 2016

21. M.Witko, P.Niemiec, R.Tokarz-Sobieraj, A.Micek-Ilnicka, U.Filek "Catalytic properties of heteropolyacids: theory vs. experiment", 16th Int. Congr. on Catalysis, Beijing 2016

Oral presentations

1. E.Bielańska, J.Camra, M.Najbar, A.Wesełucha-Birczyńska, T.Wilkosz "Ewolucja katalitycznych warstw tlenkowych aktywnych w bezpośrednim rozkładzie NO na stali austenitycznej AISI 321 pod wpływem czynników zewnętrznych", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

2. T.Borowski, A.Miłaczewska, Z.Wojdyła "Oxidative C-C bond cleavage by two metalloenzymes and one synthetic complex", Conf. 'Current Trends in Theoretical Chemistry VII', Kraków 2016

3. A.Bratek-Skicki, M.Delcroix, A.van der Straeten, C.Dupont-Gillain "Tunable protein immobilization at interfaces based on polyelectrolyte-protein interactions", Conf. Biointerfaces International 2016, Zurich 2016

4. A.Bratek-Skicki, C.Dupont-Gillain "Selective protein adsorption on stimuli-responsive brushes", 30th European Colloid and Interface Society Conf. ECIS 2016, Rome 2016

5. E.Brocławik, T.Borowski, M.Radoń, A.Stępniewski "Stany spinowe i ich znaczenie dla katalizy na centrach metali przejściowych w enzymach i nie tylko", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

6. E.Brocławik, A.Stępniewski, M.Radoń, K.Góra-Marek "High-level small-scale or periodic DFT modeling for TM centers in zeolites?", Conf. 'Current Trends in Theoretical Chemistry VII', Kraków, 2016

7. M.Duda, A.Rafalska-Łasocha, W.Łasocha "Analiza symetrii ornamentów w polichromiach w kościele mriackim i kościele Franciszkanów w Krakowie", 58. Konwersatorium Krystalograficzne, Wrocław 2016

8. D.Duraczyńska, E.M.Serwicka, A.Michalik-Zym, B.D.Napruszewska, E.Bielańska, R.P.Socha, L.Lityńska-Dobrzyńska "Uniwersalny katalizator typu Ru/SBA-15 do uwodornienia grup C=O, C=C i C≡C", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

9. M.Gackowski, E.Bielańska, K.Szczepanowicz, P.Warszyński, J.Kryściak-Czerwenka, B.Sulikowski, M.Derewiński "Silica monoliths with deposited zeolite nanoparticles as model, continuous-flow microreactors", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

10. M.Gackowski, K.Tarach, Ł.Kuterasiński, J.Podobiński, S.Jarczewski, B.Sulikowski, P.Kuśtrowski, J.Datka "Hierarchiczne zeolity Y – materiały o wysokiej kwasowości, porowatości i aktywności katalitycznej", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

11. A.Kędra, R.Socha, Z.Starowicz, M.Zimowska, M.Lipiński, P.Warszyński "Synthesis and characterization of organic and inorganic perovskites for application in solar cells", Int. Workshop 'Materials and methods for cost-effective solar cell production', Krakow 2016

12. A.Kędra, R.Socha, L.Szyk-Warszyńska, M.Zimowska, Z.Starowicz, M.Lipiński, P.Warszyński "Synteza i charakteryzacja konwerterów światła opartych na strukturze perowskitu", 7. Symp. 'Fotowoltaika i Transparentna Elektronika - Perspektywy Rozwoju', Świeradów-Zdrój 2016

13. K.Kilan, L.Szyk-Warszyńska, G.J.M.Koper, P.Warszyński "Permeability of alginate containing multilayer films cross-linked by multivalent cations", Conf. 'Soft Matter at Aqueous Interface SOMATAI', Crete 2016

14. M.Kołodziej, R.Kosydar, E.Lalik, J.Gurgul, D.Duraczyńska, A.Drelinkiewicz "Activity/selectivity control in Pd/H_xMoO_3 catalyzed cinnamaldehyde and furfural hydrogenation", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

15. A.Kornas, R.Grabowski, K.Samson, M.Śliwa, D.Rutkowska-Żbik, A.Żelazny, M.Ruggiero "Dimethyl ether synthesis through CO2 hydrogenation over hybrid catalysts: effects of preparation methods and heteropoly acids", 13th Pannonian Int. Symp. on Catalysis, Siofok 2016

16. A.Koziol-Rachwal, T.Ślęzak, B.Matlak, K.Matlak, J. Korecki "Growth and magnetic properties of ultrathin epitaxial FeO films and Fe/FeO bilayers on MgO(001)", 13th Joint MMM-Intermag Conf., San Diego CA 2016

17. Z.Krasińska, G.Pathak, L.Szyk-Warszyńska, D.Cakara "Structure investigation of pedot.pss thin films", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

18. A.Krawczyk, R.Socha, Z.Starowicz, M.Zimowska, M.Lipiński, P.Warszyński "Synthesis and characterization of organic and inorganic perovskites for application in solar cells", Int. Workshop 'Materials and methods for cost-effective solar cell production', Krakow 2016

19. M.Krzan "Influence of bubble wake, its size and shape on the bubble local and terminal velocities", Conf. EuFoam 2016, Dublin 2016

20. M.Krzan "Influence of bubble wake development on bubble motion in surfactant solutions", Symp. SGI-FunC & Conf. COST Smart and Green Interfaces, Athens 2016

21. M.Krzan, E.Jarek, H.Petkova, E.Santini, S.Kudłacik, K.Bialik-Wąs, A.Drabczyk, V.Ungalantha, M.Lofti, A.Javadi, B.Tyliszczak, E.Mileva, P.Warszyński, R.Todorov, F.Ravera, L.Liggieri, R.Miller, D.Exerowa "Piany ciekłe wytworzone na bazie mieszanin polisacharydów do zastosowań kosmetycznych i biomedycznych", Konf. 'Nowoczesna Kosmetologia – od Nauki od Biznesu', Kraków 2016

22. A.Kupczak, Ł.Lasyk, A.Działo, Ł.Bratasz, M.Łukomski, R.Kozłowski "HERIe - a web-based software for assessing risk of physical damage of heritage objects vulnerable to climate fluctuations", ICOM-CC Joint Interim Meeting 'Physical Issues in the Conservation of Paintings: Monitoring, Documenting and Treatment', Paris 2016

23. A.Kupczak, A.Sadłowska-Sałęga, L.Krzemień, J.Radoń, R.Kozłowski "Modelling impact of collections on indoor climate and energy consumption in libraries and archives", 2nd Int. Conf. on Energy Efficiency and Comfort of Historic Buildings, Brussels 2016

24. Ł.Kuterasiński, B.Sulikowski, J.Kryściak-Czerwenka, A.Dziedzicka, K.Durczyk, U.Olsbye, G.Szymański, E.Włoch, E.Bielańska, M.Derewiński "Protonowe centra kwasowe w borokrzemianach o strukturze typu MFI", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

25. E.Lalik, G.Mordarski, R.P.Socha, A.Drelinkiewicz "Oscillatory mechanism of solid/gas interaction in the palladium/hydrogen system", Int. Discussion on hydrogen energy and applications IDHEA 2016, Nantes 2016

26. D.Lupa, Z.Adamczyk, M.Oćwieja, H.Mrowiec, S.Walas "Kinetyka oksydacyjnego roztwarzania nanocząstek srebra", 59. Zjazd Naukowy PTChem, Poznań 2016

27. D.Lupa, Z.Adamczyk, M.Oćwieja, H.Mrowiec, S.Walas "Mechanisms of oxidative dissolution of silver nanoparticles", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

28. J.Maciejewska, K.Kubiak, M.Oćwieja, Z.Adamczyk "Kinetics of gold nanoparticle depostion on PAH-modified gold substrate", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

29. J.Maciejewska-Prończuk, Z.Adamczyk, M.Oćwieja, M.Morga "Monowarstwy nanocząstek złota o kontrolowanej strukturze i właściwościach", 59. Zjazd Naukowy PTChem, Poznań 2016

30. M.Nattich-Rak, M.Sadowska, Z.Adamczyk, M.Oćwieja "Mechanizmy osadzania nanocząstek srebra na powierzchni nośników koloidalnych", 59. Zjazd Naukowy PTChem, Poznań 2016

31. P.Niemiec, R.Tokarz-Sobieraj, M.Witko "Catalytic properties of modified heteropolyacids. DFT cluster model study", 16th Int. Conf on Theoretical Aspects of Catalysis, Zakopane 2016

32. M.Oćwieja, Z.Adamczyk, J.Maciejewska, K.Kubiak, M.Morga, E.Bielańska, B.Napruszewska "Preparatyka mono- oraz multiwarstw nanocząstek koloidalnych do zastosowań katalitycznych, analitycznych i biobójczych", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

33. J.Olszówka, R.Karcz, E.Bielańska, R.Dula, J.Kryściak–Czerwenka, A.Michalik–Zym, B.Napruszewska, R.P.Socha, E.M.Serwicka "Utlenianie cykloheksanonu do ε-kaprolaktonu przy pomocy nadtlenku wodoru na katalizatorach hydrotalkitowych o różnym stopniu krystaliczności", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

34. K.Onik, M.Gackowski, E.Bielańska, M.Derewiński, B.Sulikowski "Protozeolitic nanoclusters and mesoporous layered materials prepared from them: physicochemical and catalytic properties", 6th Int. Workshop on Layered Materials, Kutná Hora 2016

35. A.Miłaczewska, T.Borowski "Obliczenia metodą hybrydową QM/MM – wgląd w przebieg reakcji katalitycznej metaloenzymu ARD", Dzień Otwarty Cyfronet AGH, Kraków 2016

36. P.Panek, P.Zięba, R.Socha, M.Juel, A.Sypień, K.Gawlińska "In-line processing of n+/p and p/p+ junction systems for cheap crystalline Si solar cells production", Int. Workshop 'Materials and methods for cost-effective solar cell production', Krakow 2016

37. T.Pańczyk, Ł.Kończak, P.Wolski "Carbon nanotubes as pH controlled drugs nanocontainers. Insights from molecular dynamics simulation", World Conf. on Carbon 'Common fundamentals, remarkably versatile applications CARBON 2016', State College PA 2016

38. T.Pańczyk, P.Wolski, Ł.Kończak "A few strategies of using carbon nanotubes as smart drug delivery systems. Insights into mechanisms of action from molecular dynamics simulation", 14th Annual Congr. of International Drug Discovery Science and Technology IDDST-South Korea 2016, Gyeonggi 2016

39. W.Płaziński " Activation of the toggle switch and dynamic network of the β2-adrenergic receptor", 8th Conversatory of Medicinal Chemistry, Lublin 2016

40. W.Płaziński " Ring inversion properties of hexopyranoses: from force field parametrization to the interplay between ring shape and glycosidic linkage conformation", 8th Conversatory of Medicinal Chemistry, Lublin 2016

41. W.Płaziński " Ring inversion properties of hexopyranoses: from force field parametrization to studies on the interplay between ring shape and glycosidic linkage conformation", 28th Int. Carbohydrate Symp., New Orleans 2016

42. W.Płaziński, A.Płazińska, M. Drach "Conformational preferences of acyclic aldo- and ketohexoses and their implication for anomeric equilibria", 16th Int. Conf on Theoretical Aspects of Catalysis, Zakopane 2016

43. K.Podgórna, K.Szczepanowicz, M.Piotrowski, M.Gajdosova, F.Stepanek, P.Warszyński "Polysaccharide gel nanoparticles for controlled drug delivery and theranostic applications", Int. Conf. & Exhibition NanoTech Poland, Poznań 2016

44. A.Rugor "Oksydoreduktazy ze Sterolibacterium denitrificans jako biokatalizatory do reakcji utleniania pochodnych steroidowych", Dzień Otwarty Cyfronet AGH, Kraków 2016

45. A.Rugor, A.Wójcik, S.Mordalski, J.Staroń, A.Bojarski, M Szaleniec "The propinquity effect in enzyme catalysis: a case study of steroid C25 dehydrogenase", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

46. A.Rugor, A.Wójcik, S. Mordalski, M.Szaleniec "The mechanism of regioselective hydroxylation of sterols by steroid C25 dehydrogenase", 16th Int. Conf on Theoretical Aspects of Catalysis, Zakopane 2016

47. A.Rugor, A.Wójcik, M.Szaleniec "The Mechanism of Regioselective Hydroxylation of Sterols by Steroid C25 Dehydrogenase", 8th Int. Congr on Biocatalysis, Hamburg 2016

48. R.Socha "Badania powierzchni krzemu fotowoltaicznego po procesie dotowania z ciekłych źródeł", 7. Symp. 'Fotowoltaika i Transparentna Elektronika - Perspektywy Rozwoju', Świeradów-Zdrój 2016

49. R.P.Socha, A.Kędra, M.Zimowska, P.Panek,M.Lipiński, P.Warszyński "Surface chemistry of silicon texturized with HF", 18th European Symp. on Fluorine Chemistry, Kyiv 2016

50. R.Socha, P.Panek "Studies of the silicate glass formed on the silicon surface during inline solar cell fabrication", Int. Workshop 'Materials and methods for cost-effective solar cell production', Krakow 2016

51. R.P.Socha, P.Panek "Studies of the Silicate Glasses Formed on the Silicon Surface During in-Line Solar Cell Fabrication", 8th European Silicon Days, Poznań 2016

52. Z.Starowicz, A.Kędra, K.Berent, K.Gawlińska, K.Gwódź, E.Zielony, G.Kulesza-Matlak, R.P.Socha, K.Drabczyk, M.Lipiński "Experimental and simulation studies of optimal plasmonic structure for the front side configuration of silicon solar cells and photodiodes", Int. Workshop 'Materials and methods for cost-effective solar cell production', Krakow 2016

53. A.Stępniewski, E.Brocławik, M.Radoń, K.Góra-Marek "Description of Co-NO bond in zeolites: DFT and CASSCF calculations", 48. Ogólnopolskie Kolokwium Katalityczne, Kraków 2016

54. A.Stępniewski, E.Brocławik, M.Radoń, K.Góra-Marek "Large versus small-scale modeling for TM centers in catalysis: is bigger always better ?", Conf. 'Modeling & Design of Molecular Materials', Trzebnica 2016

55. M.Strojecki, A.Mleczkowska, Ł.Bratasz, R.Kozłowski "Particle deposition and sources in the indoor environment of historic churches", 12th Int. Conf. 'Indoor Air Quality - in Heritage and Historic Environments', Birmingham 2016

56. M.Szaleniec "Biokataliza i mikrobiologia dla różnych dziedzin przemysłu", Dzień Otwarty Klastra Life Science, Kraków 2016

57. M.Szaleniec, J.Heider "Elucidation of Factors Responsible for Enantiospecificity in Radical C-C Coupling Catalyzed by Benzylsuccinate Synthase", 8th Int. Congr on Biocatalysis, Hamburg 2016

58. M.Szczęch, O.Marszałek, M.Piotrowski, D.Jantas, K.Szczepanowicz, P.Warszyński "Biopolymer nanoparticles as neuroprotectants-loaded carriers for drug delivery to the brain", Int. Conf. & Exhibition NanoTech Poland, Poznań 2016

59. S.Świątek, B.Jachimska "Funkcjonalizacja powierzchni złota poprzez adsorpcję wołowej β-laktoglobuliny", Konf. 'Nanobiomateriały - teoria i praktyka', Toruń 2016

60. K.Tarach, M.Gackowski, B. Sulikowski, S. Jarczewski, P.Kuśtrowski, J. Datka "Hierarchical zeolites FAU: porosity, acidity and catalytic properties", 13th Pannonian Int. Symp. on Catalysis, Siofok 2016

61. K.Tokarczyk, B.Jachimska Towards modern drug carriers: Immobilization of PAMAM dendrimers on solid support", Kuźnia Młodych Talentów Akademii Młodych Uczonych PAN, Jabłonna 2016

62. R.Tokarz-Sobieraj, P.Niemiec, M.Witko "Heteropolikwasy modyfikowane w pozycji atomu addenda. Obliczenia DFT", 3. Ogólnopolskie Forum Chemii Nieorganicznej, Kraków 2016

63. P.Warszyński "Nanoparticulate delivery systems for therapies against neurodegenerative diseases", Conf. of Polish Norwegian Research Programme 'Together for Innovation in Health', Krakow 2016

64. A.Wiertel, C.Karaguzel, J.Zawała, O.Sahbaz, K.Małysa " Effect of CTAB concentration on kinetics of bubble attachment and quartz flotation", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

65. A.Wiertel, J.Zawała, K.Malysa," On mechanism of the three-phase contact formation during bubble collision with quartz surface in CTAB solutions", 59. Zjazd Naukowy PTChem, Poznań 2016

66. M.Witko "Jerzy Haber Institute of Catalysis and Surface Chemistry PAS", Polish-French Scientific Workshop on Life Sciences, Kraków 2016

67. M.Włodek, M.Kolasińska-Sojka, M.Szuwarzynski, P.Warszyński "Effect of Quantum Dots size on their incorporation into POPC/POPE supported lipid bilayers in dependence of the cushion polyelectrolyte multilayers", 30th European Colloid and Interface Society Conf. ECIS 2016, Rome 2016

68. M.Włodek, M.Kolasińska-Sojka, M.Szuwarzynski, S.Zapotoczny, R.von Klitzing, P.Warszyński "Effect of Vesicle Deposition Conditions and Surface Properties of the Cushion Material on Formation of POPC/POPE Supported Lipid Bilayer", Bristol PhD Day, University of Bristol, Bristol 2016

69. J.Zawała, D.Kosior, P.B.Kowalczuk, J.Drzymała, K.Małysa "Modelling of influence of adsorption layer on kinetics of bubble collisions and attachment to hydrophobic solid", 11th School for Postgraduate Students 'Interfacial Phenomena in Theory and Practice', Sudomie 2016

70. J.Zawała, P.B.Kowalczuk, D.Kosior, J.Drzymala, K.Malysa "A Correlation Between Kinetics of Bubble Attachment to Solids and Flotation Efficiency", Symp. SGI-FunC & Conf. COST Smart and Green Interfaces, Athens 2016

71. M.Zimowska, L.Lityńska-Dobrzyńska, J.Gurgul, R.P.Socha, H.Pálková, L.Matachowski, K.Łątka "Influence of surface composition of Fe-doped porous clay heterostructures on catalytic properties", 8th Mid-European Clay Conf. MECC 2016, Kosice 2016

72. A.Żelazny, R.Grabowski, M.Śliwa, M.Ruggiero, K.Samson, A.Kornas, D.Duraczyńska, K.Gołąbek "Cu/MxOy catalysts for glycerol hydrognolysis. Influence of the preparation method and sodium hydroxide addition", 13th Pannonian Int. Symp. on Catalysis, Siofok 2016

73. P.Żeliszewska, M.Wasilewska, Z.Adamczyk, A.Bratek-Skicki "Mechanisms of fibrinogen adsorption on colloid microparticles", 30th European Colloid and Interface Society Conf. ECIS 2016, Rome 2016

Conferences and scientific events organized by the Institute

2014

1. 46. Ogólnopolskie Kollokwium Katalityczne, Kraków, 19-21 marca 2014 (B.Sulikowski)
2. Festiwal Nauki "Z nauką przez wieki", Rynek Główny, Kraków 21-24 maja 2014 (N.Spiridis)
3. 3rd International Symposium on Air & Water Pollution Abatement Catalysis, Krakow, September 1st-5th, 2014 (M.Witko)
4. Seminarium Sprawozdawcze POIG FUNANO, Kraków, 21 października 2014 (Z.Adamczyk)
5. 5th Meeting X-ray and other techniques in investigations of the objects of cultural heritage, Krakow, May 14th-17th, 2014 (z Uniwersytetem Jagiellońskim) (R.Kozłowski, W.Łasocha)
6. International Symposium on Clean Energy from Ethanol, Rzeszów, July 28th-31st, 2014 (z Uniwersytetem Rzeszowskim) (A.Kowal)
7. Dzień Otwarty IKiFP PAN, Kraków, 7 listopada 2014 (M.Nattich-Rak)

2015

1. 47. Ogólnopolskie Kollokwium Katalityczne, Kraków, 16-18 marca 2015 (B.Sulikowski)
2. Festiwal Nauki "Oświeć się!", Rynek Główny, Kraków 20-23 maja 2015 (N.Spiridis)
3. 15th European Student Colloid Conference, Kraków, 8-11 czerwca 2015 (P.Warszyński)
4. Seminarium 'Na granicy powierzchni i światła: Adsorpcja i Spektroskopia SERS', Kraków, 2-3 lipca 2015 (Z.Adamczyk)
5. 9th International Symposium 'Surface Heterogeneity Effects in Adsorption and Catalysis on Solids', Wrocław, 7-23 lipca 2015 (M.Witko, R.Tokarz-Sobieraj)
6. 4th International Symposium on Surface Imaging / Spectroscopy at the Solid / Liquid Interface, Kraków, 2-4 września 2015 (P.Warszyński)
7. Polish-American Innovation Bridge PAIB/PAMI: How to begin, Kraków 20-21 września 2015 (B.Jachimska)
8. Workshop 'Suspensions – designing, synthesis, properties, application SUSPENS', Kraków, 25 września 2015 (Z.Adamczyk)
9. Dzień Otwarty IKiFP PAN, Kraków, 6 listopada 2015 (R.Kozłowski)
10. Warsztat "Wpływ ogrzewania zabytkowych kościołów na przenoszenie i osadzanie pyłów", Warszawa, 13 listopada 2015 (R.Kozłowski)

2016

1. 48. Ogólnopolskie Kollokwium Katalityczne, Kraków, 16-18 marca 2016 (B.Sulikowski)
2. 6th Meeting ‘X-ray and other techniques in investigations of the objects of cultural heritage', Krakow, May 19th-21st, 2016 (R.Kozłowski, W.Łasocha)
3. Festiwal Nauki "Czas i przestrzeń", Rynek Główny, Kraków 19-21 maja 2016 (N.Spiridis)

4. 16th International Conference on Theoretical Aspects of Catalysis ICTAC-16, Zakopane, June 19th-23rd, 2016 (M.Witko)

5. International QCM-D Workshop “Functional coatings using QCM-D system: theory and practice”, Krakow, June 30th, 2016 (B.Jachimska)

6. International Workshop “Materials and methods for cost-effective solar cell production” InLinePV Project Workshop, Krakow, November 16th, 2016 (P.Warszyński, R.Socha)

7. Dzień Otwarty IKiFP PAN, Kraków, 25 listopada 2016 (M.Nattich-Rak)