

Curriculum Vitae

Dr. Maria Hepel
Chemistry Department
SUNY at Potsdam
Potsdam, NY 13676

Phone: (315) 267-2267
Fax: (315) 267-3170
Email: hepelmr@potsdam.edu
Website: www2.potsdam.edu/hepelmr

CURRENT EMPLOYMENT

Distinguished Professor of Chemistry (2012 to present), State University of New York at Potsdam, Potsdam, NY
Adjunct Full Professor (2002 to present), Chemistry Department, State University of New York at Buffalo, Buffalo, NY

PREVIOUS EMPLOYMENT

Chemistry Department Chair (2007-2015), State University of New York at Potsdam, Potsdam, NY
Professor of Chemistry (1991-2012), State University of New York at Potsdam, Potsdam, NY
Associate Professor (1985-1991), State University of New York at Potsdam, Potsdam, NY
Adjunct Associate Professor, Chemistry Department of SUNY at Buffalo, (1989-2002)

Adjunct Assistant Professor (1984-1985), Chemistry Department and Senior Research Associate in Physics Department
Brooklyn College of CUNY, Brooklyn, NY 11210

Assistant Professor (1977-1980), Dept. of Physical Chemistry & Electrochemistry, Institute of Chemistry, Jagiellonian
University, 30-060 Krakow, Poland

EDUCATION

Ph.D. in Chemistry: September 1976, Institute of Chemistry, Jagiellonian University, Krakow, Poland.
Title: "Mechanisms and Kinetics of Electrode Reactions at Nonstoichiometric Copper Sulfides in Ammonia Solutions"

Master's Thesis: June 1969, Institute of Chemistry, Jagiellonian University, Krakow, Poland.
Title: "Influence of Adsorption of Anions on the Polarographic Wave of Cadmium"

Post-Doctoral Research: Department of Chemistry, State University of New York at Buffalo, 1980-1982.
Department of Physics, Brooklyn College of City University of New York, 1982-1984.

SABBATICAL LEAVE & VISITING RESEARCH

Bristol University, School of Chemistry, England (1991)
Institut fur Energieverfahrenstechnik, Julich, Germany (1992)
Utah University, Materials Engineering Department, Utah (1992)
Syracuse University, Department of Chemistry, (Summer 1990 and 1991)
SUNY Buffalo, Department of Chemistry (Summer 1987, 1988, 1989)
Turku University, Finland (1999)
Polish Academy of Science, Biosensors Division, Olsztyn, Poland (2006)
Center for Materials Research in Energy Conversion, The University of New South Wales, Sydney, Australia (2006)

PUBLICATIONS

158 papers published in peer-reviewed journals, including 16 invited papers in Special Issues, 41 chapters in books, and 1 book. Edited for ACS books. The papers received more than 2450 citations; Impact Factor: 15.4; H-Index: 28 (see: List of Publications).

The papers were published in the following international journals: Journal of the Electroanalytical Chemistry, Journal of the Electrochemical Society, Chemistry of Materials, Langmuir, Electrochimica Acta, Electroanalysis, Analyst, J. Chem. Soc. Faraday Trans., Journal of Materials Chemistry, Microchemical Journal, Journal of Chemical Education, Sensors & Transducers, Journal of New Materials for Electrochemical Systems, Biosensors & Bioelectronics, Catalysis Today, Sensors & Actuators, Journal of Physical Chemistry, Electrochem. Communications, International Journal of Hydrogen Energy, Central European Journal of Chemistry, Physical Chemistry Chemical Physics, Bioelectrochemistry, Biophysical Chemistry, Journal of Colloid and Interface Science, Analytical Chemistry, Journal of Photochemistry and Photobiology.

PRESENTATIONS

376 presentations on scientific conferences, including 72 invited talks (see: List of Presentations).

PATENTS

Seven patents in the field of mineral processing (Polish patents).

TEACHING EXPERIENCE

Twenty five years of teaching experience. Courses taught:

- 1) Quantitative Chemical Analysis (lectures, labs, and recitation)
- 2) Instrumental Analysis (lectures and labs)
- 3) Electrochemistry (lectures)
- 4) Physical Chemistry (labs and recitations)
- 5) General Chemistry (labs and recitations)
- 6) Electrochemistry of Semiconductors (lectures)
- 7) Analysis in Biology and Medicine (lectures)
- 8) Clinical Analysis (lectures)
- 9) Analytical Techniques in Human Toxicology (lectures)
- 10) Electroanalytical Techniques in Clinical Chemistry (lectures)
- 11) Forensic Science (lectures)
- 12) Advanced Analytical “Modern Electroanalytical Techniques” (lectures)
- 13) Advanced Analytical “AFM/STM Techniques” (lectures)

RESEARCH EXPERIENCE

1. Nanotechnology—Molecular Wires, Metallic Nanobridges
2. Imaging of metal nanoclusters, polymers, and biomolecules using AFM/STM and Raman spectroscopy.
3. Gold Core-Shelled Nanoparticles for Biomolecules Detection and Drug and Gene Delivery Systems.
4. Monolayers, Surfaces, and Thin Films (Proteins at Interfaces; Proteins Conformation Changes; Drugs Adsorption; Interactions of Drugs with Proteins, DNA, Glutathione, Neurotransmitters, Cysteine, Melanin and Metals; Self-Assembled Monolayers; Oxidative Stress and DNA Damage; Antioxidants; UPD (Underpotential Deposition of Metals))
5. Biosensors, Immunosensors, DNA sensors, Receptor-based sensors, Oxidative DNA damage, Binding of drugs and dyes to DNA films; Ion-gating.
6. Fluorescence Spectroscopy and Fluorescence Energy Transfer applied to analysis of DNA and proteins.
7. Resonance Elastic Light Scattering of functionalized gold nanoparticle assembly/disassembly processes.
8. Redox Reactions of Drugs and Biomolecules at Phospholipid and Dye Modified Electrodes. Ion-channels in Phospholipid/Gramacidin Films and Glutathione Films.
9. Adsorption Phenomena at Solid Electrodes (Adsorption Isotherms, Influence on Electrode Kinetics, Passivation, Electrocatalysis).
10. Controlled Targeted Release of Anticancer Drugs and Biomolecules.
11. Electrochromic Materials.
12. Gold Core-Shelled Nanostructures and Dispersed Metal Nanoparticles in Polymer Matrix for Fuel Cell and Electrocatalysis Applications.
13. Electrodeposition of Metals on Conductive Polymers. Composite Materials. Multilayer Materials. Composite Metal/Ceramics Films. Ni/SiC, Ni/TiC, Ni/BN, Cu/BN, Cu/Diamond.
14. Electroanalysis (cathodic and anodic stripping voltammetry, cyclic voltammetry, rotating disk and ring-disk electrode technique, normal pulse voltammetry, differential pulse voltammetry, chronoamperometry, chronopotentiometry, chronocoulometry, polarography, impedance and admittance measurements, etc.)
15. Electrochemistry (mechanism and kinetics of electrode reactions at solid electrodes).
16. Photoelectrochemistry of semiconductors, Dye Photosensitization, Nanostructures, Photoelectrochemical Dye Degradation.

17. Battery: Zn/KOH/AgO (charging and discharging processes, impedance measurements of porous Ag, Ag₂O, AgO electrodes).
18. Conductive Polymer Films/Composite Conductive Polymers/Ion Dynamics in Conductive Polymers.
19. Investigation of passive films on solid electrodes by voltammetric and admittance methods (relaxation spectrum impedance analysis with Fast Fourier Transform).
20. Electrochemistry of non-stoichiometric copper sulfides.
21. Hydrometallurgy of copper ores (mechanism and kinetics of leaching and electroleaching, efficiency of the processes).
22. Piezoelectric Quartz Crystal Nanobalance (EQCN) Technique & Quartz Crystal Immittance (ACI) Technique.
23. Corrosion Testing using EQCN, QCI, SEM and AFM techniques. Effect of green inhibitors on copper corrosion.
24. Monolayer and Thin Film Studies Using Scanning Probe Microscopy Techniques.

EQUIPMENT EXPERIENCE

X-Ray Diffraction; Atomic Absorption; Emission Spectrograph; UV-Vis; Transmission Electron Microscopy; Resonance Raman Spectroscopy; Scanning Electron Microscopy with EDX, Isothermal Titration Calorimetry (ITC), HPLC, GC, Thermogravimetry, Four-probe conductivity; Optical Imaging; Electrophoresis, Capacitance Measurements; Impedance Spectroscopy and Electroanalytical Equipment; Electrochemical Quartz Crystal Nanobalance Technique; High Frequency Admittance; Atomic Force Microscopy (AFM); Scanning Tunneling Microscopy (STM); Scanning Electrochemical Microscopy (SECM), Dynamic Light Scattering (DLS), Fluorescence Spectroscopy including Fluorescence Resonance Energy Transfer (FRET), Resonance Elastic Light Scattering (RELS), Fast Fourier Transform Infrared spectroscopy (FTIR), Attenuated Internal Reflectance Spectroscopy (ATR), and Surface Enhanced Raman Scattering Spectroscopy (SERS).

TALKS GIVEN AT SCIENTIFIC MEETINGS:

386 presentations (72 invited talks):

Papers presented at the Electrochemical Society Meetings(ECS), American Chemical Society (ACS) Meetings, Society for Electroanalytical Chemistry, International Society for Electrochemistry(ISE), American Electroplaters and Surface Finishers Society Meetings, Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Meetings, Eastern Analytical Symposiums(EAS), International Meetings on Chemical Sensors, Colloid and Surface Science Symposium, Pittsburgh Conferences on Analytical Chemistry and Applied Spectroscopy, Gordon Conferences, International Chemical Congress of Pacific Basin Societies and International Symposiums on Fuel Cells. International Meetings on Corrosion and Surface Analysis & Microstructures, Controlled Release Society Meetings, Materials Research Society Meetings, American Ceramic Society Meetings, International Meetings on New Materials for Electrochemical Systems, International Conference on Chemical Monitoring of the Environment, International Fisher Symposium on Electrochemistry and Environment, International Symposium on Electrochemical Methods in Corrosion Research; International Symposium on Bioelectrochemistry and Bioenergetics, IUPAC Congress; Conference of the Canadian Society for Chemistry, International Symposium on Scanning Probe Microscopy; World Congress on Biosensors; IUPAC Congress and Conference of the Canadian Society for Chemistry; Workshop on Scanning Probe Microscopy; International Meetings "Electrochemistry in Nanosciences".

MEMBER OF SCIENTIFIC SOCIETIES

1. Electrochemical Society, Inc.
2. American Chemical Society
3. American Physical Society (1982-1985)
4. International Society of Electrochemistry
5. New York Academy of Science
6. International Association for Hydrogen Energy (1983-1986, 2004-present)
7. Society for Electroanalytical Chemistry
8. American Electroplaters and Surface Finishers Society (1994-1997)
9. American Association of University Women (1990-2000)
10. Materials Research Society
11. Controlled Release Society (1996-1998)
12. Council on Undergraduate Research

13. International Bioelectrochemistry Society

AWARDS AND HONORS

- Outstanding Teaching Assistant, Krakow, Jagiellonian University, 1974.
- Chancellor's Award for Research Achievements, Krakow, Jagiellonian University, 1977.
- Ministry of Science Award for Outstanding Ph.D. Thesis, Poland, 1977.
- Chemical Society Award for Outstanding Research, Poland, 1978.
- Member of the Academic Honor Society, Phi Kappa Phi.
- Member of the Chemistry Honor Society, Gamma Sigma Epsilon.
- Member of the Scientific Research Honor Society, Sigma Xi.
- Citation in "Who's Who in Science & Engineering."
- Citation in "Who's Who in the World."
- Citation in "Who's Who of American Women."
- Citation in "Who's Who of American Education."
- Citation in "Who's Who of Polish American."
- Citation in "Who's Who Among American Teachers 2002"
- Citation in "The Contemporary Who's Who" by the American Biographical Institute
- Citation in "Who's Who in America", 55th Edition, 2001, 56th Edition, 2002.
- Citation in "2000 Outstanding Scientists of the 21st Century", 1st Edition.
- Citation in 2000 "The Roll of Honour of the Polish Science".
- President's Award for Excellence in Research & Creative Endeavor, SUNY College at Potsdam, 1995.
- Chancellor Award for Excellence in Teaching, SUNY, Albany, 1998.
- Member of Iota Sigma Phi National Honor Society for Women in Chemistry.
- President's Award for Excellence in Research & Creative Endeavor, SUNY College at Potsdam, May 2001.
- Research Advisor Recognition Award 2001/2002, CSTEP, SUNY Potsdam.
- SUNY Research Recognition Award (Albany, October 2002).
- Chancellor's Award for Excellence in Research and Creative Endeavor, SUNY, May 2007.
- American Association of University Women (AAUW) Research Award – November 5, 2009
- Received nomination for the Distinguished SUNY Professor, May 10, 2012
- The 2012 Northeast Region ACS Award for Achievements in the Chemical Sciences, October 2, 2012
- The American Chemical Society National Award to be given at the San Francisco meeting , April 4, 2017

GRANTS AWARDED (total: \$ 1,463,418)

SUNY Research Foundation NoE program "Materials & Advanced Manufacturing for Electrochemical Systems", seed proposal "Carbon Cups, Nanotubes and Composite Graphene for Energy Storage" RF project number 1118991, (2014-2017), \$17,688

SUNY /Research Foundation Research Collaboration Fund, "*Functional SERS Nanoprobes for DNA Detection and Imaging*" RF project number 1114594,(2013-2016), **\$100,000**

National Science Foundation, CCLI Program, Instrumentation grant for Raman Microscope and Raman Spectrometer. "*Raman Spectroscopy Implemented into Science Education*" 2010-2012, **\$200,000**

U.S. Department of Defense, DoD "IDEA" Program, "*Redox Abnormalities as a Vulnerability Phenotype for Autism and Related Alterations in CNS Development*", 2008-2011, **\$ 549,713**

National Science Foundation, CCLI Program, **\$122,264** and **\$72,000** matching fund, SUNY Potsdam, "*Atomic Scale Imaging Implemented into Science Education*".

Faculty-Undergraduate Summer Research Grant, SUNY Potsdam with student, Haley Redmond, Summer 2006, **\$3500**.

American Chemical Society PRF Summer Research Fellowship, Summer 2005, **\$8,000**.

- Faculty-Undergraduate Summer Research Grant, SUNY Potsdam with student, Indee D. Kumarihamy, Summer 2005, **\$3500**.
- Intellect SFT, 2002, **\$6,000**, "Development of Piezoelectric Immunosensors for PCB & Pesticides".
- ACS-Petroleum Research Fund, 2001, Supplement Award, **\$6500**, "An EQCN assessment of electrocatalytic oxidation of methanol at Au-Pt alloy nanostructured nanoparticles".
- Intellect SFT, 2001: **\$6,000** "Development of Piezoimmunosensors for Pesticides".
- Potsdam College SUNY, Faculty Undergraduate Summer Research Program, Summer 2000, **\$3,500** with student, Jeremiah Yartym, *Photoelectrochemical Degradation of Organic Pollutants*"
- ACS-Petroleum Research Fund, 1999-2000 Supplement Award, **\$6,500**, "Photocatalytic Degradation of Dyes"
- Intellect SFT, 2000, **\$6,000** "Thin film studies with EQCN & QCI Techniques".
- Faculty-Undergraduate Summer Research Grant, SUNY Potsdam with student, Kanna Ito, Summer 2002: **\$3,500**
- Grant Writing Initiative Award, **\$250**, SUNY Potsdam
- Faculty-Undergraduate Summer Research Grant, SUNY at Potsdam, with student, Sandra Hazelton, Summer 2003, **\$3500**
- The Polish National Academy of Science-USA Collaborative Research Grant, **\$6,000**.
- The American Chemical Society - The Petroleum Research Fund (PRF) 1998/2000, **\$30,000**. "Photoassisted Catalytic Degradation of Environmentally Hazardous Organic Pollutants with a New Bicomponent Nanostructured Electrode."
- Research Corporation Grant - Cottrell College Science Award, 1998-2000, **\$35,000**.
"Electrochemical and Spectroscopic Studies of Interactions of Antineoplastic Drugs with DNA-Modified Electrodes."
- Rural Services Institute Award - SUNY Potsdam Faculty Research on the North Country Program, 1996-1997, **\$1000**. "Detection of Heavy Metals in Water."
- Potsdam College - Faculty Undergraduate Summer Research Program; Summer 1998, **\$2,900** with student, Brian Kusak. "Electrochemical Photocatalysis Applied to Remove Hazardous Chemicals."
- Potsdam College, Faculty Scholarship & Grants Office - Grant Writing Initiative Award, 1997, **\$250**.
- Rural Services Institute Award - SUNY Potsdam Faculty Research on the North Country Program, 1997/1998, **\$800**. "Detection of Heavy Metals and Pesticides in Water."
- Intellect SFT, 1999-2000, **\$30,000**, "New Composite Electrocatalytic Materials"
- William C. Merwin Rural Services Institute Award, SUNY Potsdam Faculty Research on the North Country, 1998/1999, **\$618**, "Detection of Lead in Leaves and Pesticide Atrazine in Water"
- NYS/UUP Individual Professional Development Award, 1998, **\$679**
- Intellect SFT, 1999, **\$6,000**, "Immunopiezoelectric Sensors for Pesticides"
- Educational Equipment Grant, **\$3,600**, 1996, "Copper Corrosion and Metalization of Conductive Polymers." Chema Technology Inc., Waukesha, WI, **\$6,000**, 1996/1997.
"Metallization of Conductive Polymer and Composite Films" - Chema Technology, WI, **\$6,000** 1997/1998.
- Cooperation in Applied Science and Technology Grant (CAST) 1996, with Dr. I. Shiyonovskaya, National Academy of Science, Ukraine. "Novel Dye-Sensitized Nanocrystalline Materials for Energy Conversion Devices," National Research Council, Washington, D.C., **\$20,000**.
- NYS/UUP Individual Professional Development Awards, **\$479**, 1998.

Faculty Undergraduate Summer Research Program Potsdam College, SUNY (F-USRP) \$2,500 in 1991, \$2,500 in 1993, \$2,500 in 1994, \$2,500 in 1995, \$2,900 in 1996, \$2,900 in 1996, \$2,900 in 1997, \$2,900 in 2000. (See attached list.)

Mini-grant Awards, State University of New York at Potsdam, (1986, 1987, 1988, 1989, 1990, 1995, 1996), \$500/year. (See attached list.)

Research Opportunities Award (ROA), National Science Foundation, 1990, \$7,500.

Research Opportunities Award (ROA), National Science Foundation, 1991, \$9,000.

"Interactions of Drugs with Phospholipid Model Membranes," Research Corporation, 1991-1992, \$24,000.

NYS/UUP Experienced Faculty Travel Award, \$500, 1990-1991.

NATO Collaborative Research Grant CRG 930020, \$6,000 (1993-1995), "Role of Chemisorption Processes on the Performance of Electrocatalytic Materials."

NYS/UUP Faculty Development Award, \$375, 1992/1993, "Testing New Composite conductive Polymer Films with EQCM Technique."

Faculty Development Program Award, State University of New York at Potsdam, 1989, \$11,910.

Research Equipment Challenge Grant Program, Research Foundation, SUNY, 1989, \$12,814.

Research Opportunities Award (ROA), National Science Foundation, 1989, \$11,700.

Faculty Development Program, State University of New York at Potsdam, 1988, \$2,345.

"Drugs Interactions with Biomolecules."

Research & Creative Endeavors Award, \$1,1920, SUNY at Potsdam, 1988.

New Faculty Development Award, State University of New York at Potsdam, NYS/UUP 1987, \$750.

"Nucleation and Growth Phenomena."

"Effect of Oxygen on Leaching of Copper From Copper Sulfides" (1972-1973), \$6,000 funded by the Institute of Nonferrous Metals, Gliwice, Poland.

"Electroextraction of Copper from Copper Ores" (1973-1974) \$40,000 funded by the Institute of Nonferrous Metals, Gliwice, Poland.

"Dissolution of Lead and Silver from Copper Concentrates" (1974-1975) \$40,000 funded by the Institute of Nonferrous Metals, Gliwice, Poland.

"Recovery of Silver from Leaching Solutions by Cementation" (1975-1976) \$3,000 funded by the Academy of Mining and Metallurgy, Cracow, Poland.

Significant Research Enhancement Award, Graduate Research Institute Award, State University of New York, Albany, 1988, \$8,500. "Electrochemical Studies of Thin Films at Solid Electrodes."

Faculty Development Program Award, State University of New York at Potsdam, 1988, \$1,950. "Thin Films Studies using Impedance Analyzer."

PROFESSIONAL ACTIVITIES

Member of the Editorial Board of the "Journal of Nanomedicine and Nanotechnology".

Member of the Editorial Board of the "International Journal of Nano Studies & Technology"

Member of the Editorial Board of the "Austin Journal of Nanomedicine & Nanotechnology & Bionanotechnology"

Member of the Editorial Board of the "Austin Journal of Biosensors & Bioelectronics"

Member of the Editorial Board of the "Polish Journal of Environmental Studies"

Member of the Editorial Board of the "Open Electrochemistry Journal".

Member of the Editorial Board of the "Mediterranean Journal of Chemistry".

Associated Editor of the "Mediterranean Journal of Chemistry".

Review Editor of the "Frontiers in Physical Chemistry & Chemical Physics"

Editor of the American Chemical Society book "Functional Nanoparticles for Bioanalysis and Electronic Devices", American Chemical Society, Washington, DC, Oxford University Press, 2011-2012 (in press).

Editor of the American Chemical Society book "Oxidative Stress: Diagnosis, Prevention and Therapy", ACS Symposium Series, Vol. 1083, American Chemical Society, Washington, DC, Oxford University Press, 2012.

Invited to be contributing Author to 13 volumes of different Special Issues of the following journals:
Electrochimica Acta, *Journal of the Electroanalytical Chemistry*, *International Journal of Hydrogen Energy*,
Bioelectrochemistry, *Elektrokhimiya*, and *Electroanalysis*,

Organizer of the Symposium "Graphene-Based Nanomaterials for Biosensors, Nanomedicine and Bioelectronic Applications" at the National Meeting of the American Chemical Society, San Francisco, CA, August 10-14, 2014

Organizer of the Symposium "Functional Nanoparticles for Bioanalysis and Electronic Devices" at the National Meeting of the American Chemical Society, Denver, CO, Aug. 28 - Sept. 1, 2011.

Program Chair of the Northeast Regional Meeting of the American Chemical Society, NERM' 2010 held at SUNY Potsdam, June 2-5, 2010.

Contributing coauthor to the "Electrochemical Dictionary", Editors: F. Scholtz, G. Inzelt, A. Bard, Publisher: Springer Verlag, Heidelberg, Germany, 2008

Chairperson of the Symposium "Nanotechnology" at the Electrochemical Society Meeting, Denver, CO., May 7-12, 2006

Organizer of the Symposium "Nanotechnology and Emerging Analytical/Bioanalytical Applications" at The Eastern Analytical Symposium, Somerset, NJ, Nov. 14-17, 2005.

Chairperson of the Session at the Symposium "Nanotechnology and Emerging Analytical/Bioanalytical Applications" at the Eastern Analytical Symposium, Somerset, NJ, Nov. 14-17, 2005.

Chairperson of the Session at the XVIIIth "International Symposium on Bioelectrochemistry and Bioenergetics", Coimbra, Portugal, June 19-25, 2005.

Chairperson of the Symposium "Environmental Electrochemistry at the Meeting of the International Society of Electrochemistry, Thessaloniki, Greece, Sept. 19-24, 2004.

Chairperson of the Symposium, "Corrosion Science and Technology" at the meeting of the International Society of Electrochemistry, Thessaloniki, Greece, Sept. 19-24, 2004.

Chairperson of the Symposium, "Interfacial Electrochemistry" at the Meeting of the International Society of Electrochemistry, Thessaloniki, Greece, Sept. 19-24, 2004.

Chairperson of the Symposium, "Frontiers of Analytical Electrochemistry," at the International Meeting of the Electrochemical Society, ISE, Sao Pedro, Brazil.

Chairperson of the session at the XVth International Symposium on Bioelectrochemistry and Bioenergetics, Bratislava, Slovak Republic, June 11-6, 2001.

Chairperson of the Symposium, "Novel Methods" at the 7th International Symposium on Electrochemical Methods in Corrosion Research, Budapest, Hungary, May 28-June 1, 2000.

Chairperson of the Session, "Semiconductors, Semiconductor Devices and Photoelectrochemistry", 4th International Symposium, "New Materials for Electrochemical Systems", July 9-13, 2001, Montreal, Canada.

Chairperson of the Session, "Biomembranes and Model Membranes," XVIth International Symposium on "Bioelectrochemistry and Bioenergetics 1-6, June, 2001, Bratislava, Slovakia.

Chairperson of the Symposium, "Novel Methods" at the 7th International Symposium on Electrochemical Methods in Corrosion Research, Budapest, Hungary, May 28-June 1, 2000.

Representative of the local section of the Northeast American Chemical Society at the NERM Steering Committee (2000-2005).

Elected Officer Co-Chairperson of the Analytical Chemistry Division of the International Society of Electrochemistry, (1991- 1993).

Chairperson of the Session "Fundamental Electrochemistry" at the 49th Meeting of the International Society of Electrochemistry, Kitakyushu, Japan, Sept. 13-18, 1998.

Chairperson and Symposium Organizer "Immunosensors, Nucleic Acid & Receptor Based Sensors"

The Northeast Regional Meeting of the American Chemical Society, NERM'99, June 22-26, 1999, Clarkson University, Potsdam, NY

Chairperson of the "General Electrochemistry Symposium" at the Electrochemical Soc. Meeting, Hollywood, FL, Oct. 15-20, 1989.

Session Co-chairperson at the National American Chemical Society Meeting, Miami Beach, FL, September 10-15, 1989, Symposium "Analytical Measurements Based on Piezoelectric Crystal Responses."

Chairperson of the Battery Division Student Award Committee of the Electrochemical Society (1990-1993).

Chairperson of the "Symposium on Chemical Vapor Deposition" at the 22nd NERM Meeting of the American Chemical Society, Syracuse, NY, June 21-24, 1992.

Chairperson of the "Symposium of New Analytical Applications of Piezoelectric sensors", at the National American Chemical Society Meeting, San Francisco, CA, April 7-11, 1992.

Chairperson of the "Symposium on New Materials Related to Electrochemistry" at the 46th Annual Meeting of the International Society of Electrochemistry, Xiamen, China, Aug.27-Sept. 1, 1995.

Member of the Education Committee of the Electrochemical Society (1987 - 1990).

Representative of the local section of the Northeast American Chemical Society at the NERM Steering Committee (2000 -2005).

SUNY POTSDAM COLLEGE SERVICE

Member of the State University of New York Distinguished Academy (2013-till present)

Chair of the Department of Chemistry (2005-till present)

Member of the Council of Chairs, Arts & Science School (2005-till present)

Member of the Teacher Education Advisory Council (TEAC) (2005-till present)

Member of the Research and Creative Endeavors Committee, Potsdam College, SUNY (1988-1992)

Member of the Radiation Committee, Potsdam College, SUNY (1990-1992).

Member of the Learning and Research Fair Committee, Potsdam College, SUNY (1992).

Member of the Teaching & Learning Committee (1993-1994).

Member of the Presidential Scholars Committee (1993-1994).

Secretary of the Honor Society of Phi Kappa Phi, SUNY Potsdam, Chapter 258 (1993-1996)

President of the Honor Society of Phi Kappa Phi, SUNY Potsdam, Chapter 258 (1997-1999)

Member of the Employee Assistance Program (EPA) Committee (2000-2005).

Member of Teaching Effectiveness Committee, Associated Colleges of the St. Lawrence Valley (2000-2013)

REVIEWER OF PROPOSALS

Reviewer of the proposals for the National Science Foundation (NSF).

Reviewer of the proposals for the International Science Foundation (ISF).

Reviewer of the proposals for the Petroleum Research Fund, American Chemical Society.
 Reviewer of the proposals for the Research Corporation Fund.
 Reviewer of the proposals for King Fahd University of Petroleum, Saudi Arabia.
 Reviewer of the proposals for the United States Department of Agriculture, SBIR Programs.
 Reviewer of the proposal for the Austrian National Science Foundation.

REVIEWER OF PAPERS FOR THE FOLLOWING JOURNALS (38 international Journals)

<i>Advanced Materials</i>	<i>Journal of Materials Chemistry</i>
<i>Analytical Chemistry</i>	<i>Journal of Microbiological Methods</i>
<i>Analytica Chimica Acta</i>	<i>Journal of Non-Crystalline Solids</i>
<i>Bioactive and Biodegradable Polymers</i>	<i>Journal of Physical Chemistry</i>
<i>Biosensor & Bioelectronics</i>	<i>Journal of Scanning Probe Microscopy</i>
<i>Bioelectrochemistry</i>	<i>Journal of Solid State Electrochemistry</i>
<i>Canadian Journal of Chemistry</i>	<i>Journal of the Electrochemical Society</i>
<i>Chemical Physics Letter</i>	<i>Langmuir</i>
<i>Chemosphere</i>	<i>Materials Chemistry & Physics</i>
<i>Electroanalysis</i>	<i>Polish Journal of Environmental Studies</i>
<i>Electrochemistry Communications</i>	<i>Proceedings Volume of ACS Symposium Series</i>
<i>Electrochimica Acta</i>	<i>Proceedings Volume of Materials Research Society</i>
<i>Faraday Transactions (The Royal Society of Chemistry)</i>	<i>Research Letters in Nanotechnology</i>
<i>International Journal of Hydrogen Energy</i>	<i>Sensors</i>
<i>Int. Journal of Environmental Analytical Chemistry</i>	<i>Sensors & Actuators</i>
<i>Journal of International Solar Energy</i>	<i>Solid State Ionics</i>
<i>Journal of Colloid & Interface Science</i>	<i>Thin Solid Films</i>
<i>Journal of Electroanalytical Chemistry</i>	<i>Trends in Polymer Science</i>
<i>Journal of Hazardous Materials</i>	<i>Ultrasonics—Sonochemistry</i>

RESEARCH COLLABORATIONS WITH OTHER SCHOOLS

Department of Chemistry, University of Albany, in the field of energy conversion (2014-till present)

Department of Materials Science & Engineering, SUNY at Stony Brook in the field of supercapacitors (2014-till present)

Department of Chemistry, SUNY at Binghamton in the field of SERS nanoprobe for DNA detection and imaging (2013-till present)

Institute of Chemistry, University of Warsaw, Poland, in the field of DNA biosensors (2009 – till present).

Masaryk University, Department of Biochemistry, Brno, Czech Republic in the field of immunosensors and biosensors (1999-till present).

Polish Academy of Science, Institute of Food Research, Olsztyn, Poland in the field of detecting toxins in food products and proteins adsorption (2003-till present).

SUNY at Buffalo in the field of UPD films (1985-1990).

Syracuse University in the field of size-quantized semiconductors (1989-1994).

Institute für Energieverfahrenstechnik, Forschungszentrum, Jülich, Germany in the field of fuel cells (1993-1995).

Drug Institute, Warszawa, Poland, in the field of controlled drug release (1992-1996).

Department of Chemistry, SUNY at Binghamton in the field of nanostructured catalysts (2001-2006)

Academia Swietokrzyska, Institute of Chemistry, Kielce, Poland in the field of corrosion inhibition (2004-2007).

Center for Materials Research in Energy Conversion, School of Materials Science and Engineering, The University of New South Wales, Sydney, Australia in the field of solar hydrogen energy (2005-2009).

V.I. Vernadskii Institute of General & Inorganic Chemistry of the Ukrainian National Academy of Sciences, Kiev in the field of electrochromic materials (2007-till present).

LIST OF PEER-REVIEWED PUBLICATIONS

*(158 papers published in peer-reviewed journals, including 18 invited papers in Special Issues, 44 chapters in books and 1 book, 4 edited books; over 2500 citations, h-index 30, impact factor: 15.4; * - senior Author)*

ILKHANI H., HUGHES T., LI J., ZHONG C.J.*, and HEPEL M.*

"Nanostructured SERS-electrochemical biosensors for testing of anticancer drug interactions with DNA"
Biosensors and Bioelectronics, 80 (2016) 257-264; DOI: 10.1016/j.bios.2016.01.068.

LI J., SKEETE Z., SHAN S., YAN S., KURZATKOWSKA K., ZHAO W., NGO Q.M., HOLUBOVSKA P., LUO J., HEPEL M.*, and ZHONG C.J.*

"Surface Enhanced Raman Scattering Detection of Cancer Biomarkers with Bifunctional Nanocomposite Probes"

Analytical Chemistry, 87 (2015) 10698-10702; DOI: 10.1021/acs.analchem.5b03456.

RICE C.A.*, BETANCOURT D., and HEPEL M.*

"Platinum Oxide Growth on Pt/C Fuel Cell Catalysts Using Asymmetric Scan Electrochemical Quartz Crystal Nanogravimetry"

Electrocatalysis, 6 (2015) 1-6, DOI: 10.1007/s12678-014-0221-2.

XU H., WALLACE R., and HEPEL M.*

"Interactions of antifouling monolayers. Energy transfer from excited albumin molecule to Phenol Red dye"

✪Invited paper for the Special Issue on *Biosensors*.

Chemical Papers, 69 (2015) 227-236.

KUBESA O., MORRISEY K., MATTHEWS S., PROETTA J., LI C. SKLADAL P.*, HEPEL M.*

"Design of Novel Biosensors for Determination of Phenolic Compounds using Catalyst-Loaded Reduced Graphene Oxide Electrodes"

Mediterranean Journal of Chemistry, 3 (2014) 916-928.

HEPEL M.*, DELA-MOSS L.I., and REDMOND H.

"Lattice polarization effects in electrochromic switching in WO_{3-x} films studied by pulse-nanogravimetric technique"

Invited paper for the Special Issue devoted to the memory of Professor V.S. Bagotzky.

Journal of Solid State Electrochemistry, 18 (2014) 1251-1260, DOI: [10.1007/s10008-013-2219-8](https://doi.org/10.1007/s10008-013-2219-8)

NOWICKA A.M., STOJEK Z., HEPEL M.*

"Chromium(VI) but not chromium(III) species decrease mitoxantrone affinity to DNA"

Journal of Physical Chemistry B, 117 (2013) 1021-1030.

HEPEL M.*, STOBIECKA M., PEACHEY J., and MILLER J.

"Intervention of glutathione in pre-mutagenic catechol-mediated DNA damage in the presence of copper(II) ions"

Mutation Research 735 (2012) 1-11.

STOBIECKA M., MOLINERO A.A., CHALUPA A, HEPEL M.*

"Mercury/homocysteine ligation-induced ON/OFF switching of a T-T mismatch-based oligonucleotide molecular-beacon"
Analytical Chemistry 84 (2012) 4970-4978, DOI: 10.1021/ac300632u.

HEPEL M.*, STOBIECKA M.

"Comparative Kinetic Model of Fluorescence Enhancement in Selective Binding of Monochlorobimane to Glutathione"
Journal of Photochemistry and Photobiology A 225 (2011) 72-80.

STOBIECKA M., HEPEL M.*

"Double-Shell Gold Nanoparticle-Based DNA-Carriers with Poly-L-lysine Binding Surface"
Biomaterials 32 (2011) 3312-3321.

STOBIECKA M., HEPEL M.*

"Effect of Buried Potential Barrier in Label-less Electrochemical Immunodetection of Glutathione and Glutathione-Capped Gold Nanoparticles"

Biosensors and Bioelectronics 26 (2011) 3524-3530.

STOBIECKA M., HEPEL M.*

"Multimodal Coupling of Optical Transitions and Plasmonic Oscillations in Rhodamine B Modified Gold Nanoparticles"

Physical Chemistry Chemical Physics 13 (2011) 1131–1139; 13 (2011) 16446–16448.

HEPEL M.*, STOBIECKA M.

"Microsensor Arrays for Determination of Biomarkers of Oxidative Stress",
ECS Transactions, 35 [7] (2011) 125-134.

HEPEL M.*, STOBIECKA M.

"Novel DNA-Hybridization Biosensors for Studies of Atrazine Interactions with DNA",

✪ *Invited paper for Advances in Environmental Research* 6 (2011) 253-298.

STOBIECKA M., HEPEL M.*

"Nitrotyrosine as a Biomarker of Diabetes",

✪ *Invited paper for Advances in Medicine and Biology* 13 (2011) 177-202.

XU H. and HEPEL M.*,

"Molecular Beacon-Based Fluorescent Assay for Selective Detection of Glutathione and Cysteine",
Analytical Chemistry 83 (2011) 813-819.

NOWICKA A.M., KOWALCZYK A., DONTEN M., LEECH D., HEPEL M.*, STOJEK Z.*,

"Substantial Influence of Temperature on Anchoring of Gold-Nanoparticle Monolayer for Performance of DNA Biosensors"

Electroanalysis 22 (2010) 2323-2329.

PRANCE A., COOPERSMITH K., STOBIECKA M., HEPEL M.*

Biosensors for Detection of DNA Damage by Toxicants,

ECS Transactions 33 [8] (2010) 3-15.

STOBIECKA M, CUTLER S., REED Z., PRANCE A., HEPEL M.*

Detection of Oxidative Stress Biomarker Homocysteine Utilizing Resonance Elastic Light Scattering,
ECS Transactions 28 [18] (2010) 115-128.

PRANCE A., REED Z., STOBIECKA M., HEPEL M.*

Resonance Elastic Light Scattering and Plasmonic Phenomena in Glutathione-Mediated Gold Nanoparticle Assembly,
ECS Transactions 28 [20] (2010) 43-57.

STOBIECKA M., COOPERSMITH K., CUTLER S., HEPEL M.*

Novel DNA-Hybridization Biosensors for Studies of DNA Underwinding Caused by Herbicides and Pesticides,
ECS Transactions 28 [34] (2010) 1-12.

STOBIECKA M., HEPEL M.*

Rapid Functionalization of Metal Nanoparticles by Moderator-Tunable Ligand-Exchange Process for Biosensor Designs,
Sensors Actuators, B: Chemical 149 (2010) 373-380.

STOBIECKA M., COOPERSMITH K., HEPEL M.*

Resonance Elastic Light Scattering (RELS) Spectroscopy of Fast Non-Langmuirian Ligand-Exchange in Glutathione-Induced Gold Nanoparticle Assembly,
J. Colloid and Interface Science 350 (2010) 168-177.

STOBIECKA M., DEEB J., HEPEL M.*

"Ligand Exchange Effects in Gold Nanoparticle Assembly Induced by Oxidative Stress Biomarkers: Homocysteine and cysteine",
Biophysical Chemistry 146 (2010) 98-107.

NOWICKA A.M., KOWALCZYK A., STOJEK Z., HEPEL M.*

Nanogravimetric and Voltammetric DNA-Hybridization Biosensors for Studies of DNA Damage by Common Toxicants and Pollutants",
Biophysical Chemistry 146 (2010) 42-53.

HEPEL M.*, WICKHAM D.

"Large Cation Model of Dissociative Reduction of WO_{3-x} Lattice Studied by EQCN and AFM"
ECS Transactions 19 [23] (2009) 11-23.

STOBIECKA M., DEEB J., HEPEL M.*

"Molecularly Templated Polymer Matrix Films for Biorecognition Processes: Sensors for Evaluating Oxidative Stress and Redox Buffering Capacity"
ECS Transactions 19 [28] (2009) 15-32.

NOWICKA A., HAFNER S., HEPEL M.*

"Antineoplastic Drug Interactions with DNA Modified Gold Piezoelectrodes"
ECS Transactions 19 [28] (2009) 1-13.

HEPEL M.*, REDMOND, H.

"Large Cation Model of Dissociative Reduction of Electrochromic WO_{3-x} Films"
Central European Journal of Chemistry 7 (2009) 234-245.

HEPEL M.*, DALLAS J.

"Multifunctional Polypeptide EQCN Sensors: Probing the Cysteamine-Glutathione Film Permeability with Hg(II) Ions"
Sensors 8 (2008) 7224-7240.

HEPEL M.*, DALLAS J., NOBLE M.D.

"Interactions and Reactivity of Hg(II) on Glutathione Modified Gold Electrode Studied by EQCN Technique "
Journal of Electroanalytical Chemistry 622 (2008) 173-183.

HEPEL M.*, DALLAS J.
"Environmental Aspects of GSH Redox Regulation and Oxidative Stress"
Chemické Listy 102 (2008) 96-97.

HEPEL M.*
"Electrochemical Formation of Quantum Conductance Cu-Metal Nanobridges"
★Invited paper for the Special Issue on "Fundamentals and Applications of Electrocrystallization", *Elektrokhimiya* 44 (2008) 716-729.

HEPEL M.*, DALLAS J., NOBLE M.D.
"Glutathione Modified Gold Piezoelectric and Voltammetric Sensors for Determination of Mercury in a Wide Concentration Range"
Sensors and Transducers 88 (2008) 47-58.

SCENDO M., HEPEL M.*
"Inhibiting Properties of Benzimidazole Films for Cu(II)/Cu(I) Reduction in Chloride Media Studied by RDE and EQCN Techniques"
Journal of Electroanalytical Chemistry 613 (2008) 35-50.

HEPEL M.*
"Electrochromic WO₃ Films: Nanotechnology Experiments in Upper Division Courses in Instrumental Analysis and Physical Chemistry Laboratories"
Journal of Chemical Education 85 (2008) 125-127; on-line Supplement: pp. 1-37.

HEPEL M.*, REDMOND H., DELA I.
"Electrochromic WO_{3-x} Films with Reduced Lattice Deformation Stress and Fast Response Time"
Electrochimica Acta 52 (2007) 3541-3549.

HEPEL M.*, KUMARIHAMY I.,
"Nanocrystalline Structure and Nanopore Formation in Modified Thermal TiO₂ Films"
★Invited paper for the Special Issue on "Solar-Hydrogen",
International Journal of Hydrogen Energy 32 (2007) 2693-2702.

HEPEL M.*, STOBIECKA M.
"Interactions of Adsorbed Albumin with Underpotentially Deposited Copper on Gold Piezoelectrodes"
★Invited paper to the Special Issue: "Selection of Papers from the 18th International Symposium on Bioelectrochemistry BES-ISE 2005",
Bioelectrochemistry 70 (2007) 155-164.

HEPEL M.*, DELA I., HEPEL T., LUO J., ZHONG C.J.
"Novel Dynamic Effects in Electrocatalysis of Methanol Oxidation on Supported Nanoporous TiO₂ Bimetallic Nanocatalysts",
★Invited paper to the special issue: "Surface Imaging/Spectroscopy at the Solid/Liquid Interface", *Electrochimica Acta* 52 (2007) 5529-5547.

SCENDO M., HEPEL M.*
"Inhibiting Properties of BIM for Cu(II)/Cu(I) Reduction in Chloride Media Studied by RDE and EQCN Techniques",
Corrosion Science 49 (2007) 3381-3407.

HEPEL M.*
"Quantum Conductance of Monatomic Ni Nanobridges"
Electrochimica Acta 51 (2006) 5811-5824.

HEPEL M.*, KUMARIHAMY I., ZHONG C.J.,
"Nanoporous TiO₂-Supported Bimetallic Catalysts for Methanol Oxidation in Acidic Media"
Electrochemistry Communications 8/9 (2006) 1439-1444.

PRIBYL J., HEPEL M.*, and SKLADAL P.*

"Piezoelectric Immunosensors for Polychlorinated Biphenyls Operating in Aqueous and Organic Phases",
Sensors and Actuators, B: Chemical 113 (2006) 900-910.

HEPEL M.*

"Effect of Albumin on Underpotential Lead Deposition and Stripping on Ag-RDE",

★ **Invited paper for the Special Issue: "In Memory of Professor R.A. Osteryoung"**,
Electroanalysis 17 (2005) 1401-1412.

STOBIECKA M. HEPEL M.* and RADECKI J.

"Transient Conformation Changes of Albumin Adsorbed on Gold Piezoelectrodes",

★ **Invited paper to the Special Issue: "Electrochemistry from Nanostructures to Power Plants"**,
Electrochimica Acta 50 (2005) 4873-4887.

HEPEL M.* and HAZELTON S.

"Photoelectrochemical Degradation of Diazo Dyes on Nanostructured Electrodes",

★ **Invited paper to the Special Issue: "Electrochemistry from Nanostructures to Power Plants"**,
Electrochimica Acta 50 (2005) 5278-5291.

HEPEL M.* and TEWKSBURY E.

"Nanogravimetric Study of Templated Copper Deposition in Ion-Channels of Self-Assembled Glutathione Films on Gold Piezoelectrodes",

★ **Invited paper to the Special Issue: "The Role of Electrochemistry in the Sustained Development of Modern Societies"**,
Electrochimica Acta 49 (2004) 3827-3840.

HEPEL M.* and TEWKSBURY, E.

"Ion-Gating Phenomena of Self-Assembling Glutathione Films on Gold Piezoelectrodes",

★ **Invited paper to the Special Issue honoring Professor B. Damaskin**,
J. Electroanalytical Chemistry 552 (2003) 291-305.

PRIBYL, J., HEPEL M.*, HALAMEK, J., and SKLADAL, P.*

"Development of Piezoelectric Immunosensors for Competitive and Direct Determination of Atrazine",
Sensors and Actuators, B: Chemical 91(2003) 333-341.

HALAMEK, J., HEPEL M.*, and Skladal, P.*

"Investigation of Highly Sensitive Piezoelectric Immunosensors for 2,4-dichlorophenoxy Acetic Acid",
Biosensors and Bioelectronics 16, (2001) 253-260.

LUO, J., MAYE, M., HAN, L., HEPEL M.*, and ZHONG, C.J.*

"Catalytic Activation of Core-Shell Assembled Gold Nanoparticles as Catalyst for Methanol Electrooxidation",
Catalysis Today 77 (2002) 127-138.

MAYE, M., LUO, J., LIN, Y., ENGELHARD, M., HEPEL M.*, and ZHONG, C.J.*

"X-ray Photoelectron Spectroscopic Study of the Activation of Molecularly-Linked Gold Nanoparticle Catalysts",
Langmuir 19 (2003) 125-131.

LUO, J., KARINKI, N., MAYE, M., KOWALESKI, S., HEPEL M.*, and Zhong, C.J.*

"Interfacial Mass Flux at 11-Mercaptoundecanoic Acid Linked Nanoparticle Assembly on Electrodes",
J. Physical Chemistry 106 (2002) 9313-9321.

LUO, J., YARTRYM, J., and HEPEL M.*

"Photoelectrochemical Degradation of Orange II Textile Dye on Nanostructured WO₃ Film Electrodes",
J. New Materials for Electrochemical Systems 5 (2002) 315-321.

HEPEL M.*, and SCENDO, M.

"Kinetics of CuEtX Film Formation on Copper Piezoelectrodes",

★ **Invited paper to the Special Issue dedicated to Professor W.J. Albery**,
J. Electroanalytical Chemistry 538 (2002) 121-132.

HEPEL M.*

"Ion Channeling Phenomena and TL-UPD Induced Film Dynamics in Model Biomembranes Studied with EQCN and QCI Techniques",

★ **Invited paper to the Special Issue: "Electrochemistry at the Turn of the Millenium",**
J. Electroanalytical Chemistry 509 (2001) 90-106.

HALAMEK, J., HEPEL M.*, and Skladal, P.*

"Investigation of Highly Sensitive Piezoelectric Immunosensors for 2,4-dichlorophenoxy Acetic Acid",

Biosensors and Bioelectronics 16 (2001) 253-260.

LUO, J. and HEPEL M.*

"Photoelectrochemical Degradation of Naphthol Blue Black Diazo Dye on WO₃ Film Electrode" *Electrochimica Acta* 46 (2001) 2913-2922.

LUO, J., LOU, Y., MAYE, M.M., ZHONG, C.J.*, and HEPEL M.*

"An EQCN Assessment of Electrocatalytic Oxidation of Methanol at Nanostructured Au-Pt Alloy Nanoparticles",
Electrochemistry Communications 3 (2001) 172-176.

HEPEL M.* and LUO, J.

"Photoelectrochemical Mineralization of Textile Diazo Dye Pollutants Using Nanocrystalline WO₃ Electrodes".

★ **Invited paper to the special issue "Electrochemistry and the Environment",**
Electrochimica Acta 47 (2001) 729-740.

HEPEL M.* and CATEFORIS, E.

"Studies of Copper Corrosion Inhibition using Electrochemical Quartz Crystal Nanobalance and Quartz Crystal Immittance Techniques".

★ **Invited paper to the special issue "Electrochemical Methods in Corrosion Research",**
Electrochimica Acta 46 (2001) 3801-3815.

LUO, J., HUANG, H.G., ZHANG, H.P., WU, L.L., and HEPEL M.*

"Studies on Photoelectrochemistry of Nano-particulate TiO₂PANi/p-ATP Films on Au Electrodes",

J. New Materials for Electrochemical Systems 3 (2000) 247-249.

SHIYANOVSKAYA I., HEPEL M.* and TEWKSBURY, E.

"Electrochromism in Electrodeposited Nanocrystalline WO₃ Films", I. Electrochemical and Optical Properties,

J. New Materials for Electrochemical Systems 3 (2000) 241-247.

HEPEL M.* and JANUSZ, W.

"Study of Leuco-Methylene Blue Films Growth and Its Reoxidation on Sulphur-Modified Au-EQCN Electrode,

★ **Invited paper to the Special Issue on "The QCM in Electrochemistry",**
Electrochimica Acta 45 (2000) 3785-3799.

LUO, J., MAYE, M.M, ZHONG, C.J.* and HEPEL M.*

"Probing Mass Transport Characteristics in Nanostructured Gold Catalysts"

J. New Materials for Electrochemical Systems 5 [4] (2002) 237-242.

HEPEL M.* and MAHONEY, C.

"Electrodeposition and Characterization of Nickel/Silicon Carbide Films",

Ceramic Transactions 92 (1999) 303-314.

HEPEL M.*

"The Electrocatalytic Oxidation of Methanol at Finely Dispersed Platinum Nanoparticles in Polypyrrole Films",

J. Electrochemical Society 145 (1998) 124-134.

HEPEL M.* and SHIYANOVSKAYA, I.

"Decrease of Recombination Losses in Bicomponent WO₃/TiO₂ Films Photosensitized with Cresyl Violet and Thionine",

J. Electrochemical Society 145 (1998) 3981-3985.

SHIYANOVSKAYA, I. and HEPEL M.*

"Bicomponent WO₃/TiO₂ Films as Photoelectrodes",

J. Electrochemical Society 146 (1999) 243-249.

SHIYANOVSKAYA, I. and HEPEL M.*

"Isotopic Effects in Cation Injected Electrochromic Films",

J. Electrochemical Society 145, (1998) 1023-1028.

HEPEL M.* and MAHDAVI, F.

"Application of the Electrochemical Quartz Crystal Microbalance for Electrochemically Controlled Binding and Release of Chlorpromazine from Conductive Polymer Matrix", *Microchemical Journal* 55 [1] (1997) 54-64.

HEPEL, J., BRUCKENSTEIN, S., and HEPEL M.*

"Effect of pH on Ion-Dynamics in Composite PPy/Heparin Films",

Microchemical Journal 55 (1997) 179-190.

HEPEL M.* and DENTRONE, L.

"Controlled Incorporation of Heavy Metals from Aqueous Solutions and Their Release Using Composite Polypyrrole Films", *Electroanalysis* 1 (1997) 995-1005.

HEPEL M.*, STEPHENSON, R., and PERKINS, S.

"Use of Electrochemical Quartz Crystal Microbalance Technique to Track Electrochemically Assisted Removal of Heavy Metals from Aqueous Solutions by Cation-Exchange Composite Polypyrrole-Modified Electrodes",

Microchemical Journal 56 [1] (1997) 79-92.

LOVEDAY, D. C., HILLMAN, A. R., ORPEN, A.G., PRINGLE, P. G. and

HEPEL M.*

"Electrochemical Quartz Crystal Microbalance Studies of Partially Oxidized Tetracyanoplatinum Salts",

J. Materials Chemistry 6 [6] (1996) 993-998.

HEPEL M.*, CHEN, YI-MING, and STEPHENSON, R.

"Effect of the Composition of Polypyrrole Substrate on the Electrodeposition of Copper and Nickel",

J. Electrochemical Society 143 [2] (1996) 498-505.

HEPEL M.*

"Composite Polypyrrole Films Switchable Between the Anion- and the Cation-Exchanger State", *Electrochimica Acta* 41 [1] (1996) 63-76.

HEPEL M.*, BRUCKENSTEIN, S.*, and KANIGE, K.

"Expulsion of Borate Ions from Silver/Solution Interfacial Region During Underpotential Deposition Discharge of Bi(III) in Borate Buffers",

Journal of Chemical Society, Faraday Transactions 89 [2] (1993) 251-254.

HEPEL M.*

"Characterization of Conductive Composite Polymers by the EQCM Technique",

Ceramic Transactions 19 (1991) 389-396.

HEPEL M.*, SEYMOUR, E., and FENDLER, J.*

"Incorporation Of CdS Particles Into Polypyrrole And Polypyrrole/Poly(Styrenesulfonate) Films",

Chemistry of Materials 4 (1992) 209-216.

HEPEL M.*

"Characterization of Conductive Composite Polymers by the EQCM Technique",

Ceramic Transactions 19 (1991) 389-396.

HEPEL M.*

"Influence of the Adsorption of Organic Compounds on Submonolayer Stripping Voltammetry of Metals at Solid Electrodes", *Electroanalysis* 2 (1990) 319-326.

HEPEL M.*, KANIGE, K. and BRUCKENSTEIN, S.*

"Expulsion of Borate Ions from Silver/Solution Interfacial Region During Underpotential Deposition Discharge of Pb(II) in Borate Buffers",

Langmuir 6 (1990) 1063-1067.

HEPEL M.*, and BRUCKENSTEIN, S.*

"Tracking Anion Expulsion During Underpotential Deposition of Lead on Silver Using the Quartz Microbalance",

Electrochimica Acta 34 (1989) 1499-1504.

HEPEL M.*, KANIGE, K., and BRUCKENSTEIN, S.*

"In situ Underpotential Deposition Study of Lead on Silver Using the Electrochemical Quartz Crystal Microbalance. Direct Evidence for Lead (II) Adsorption Before Spontaneous Charge Transfer",

J. Electroanalytical Chemistry 266 (1989) 409-421.

HEPEL M.* and BRUCKENSTEIN, S.*

"Induction Time in Stripping Voltammetry at Solid Electrodes",

Electroanalysis 1 (1989) 311-315.

HEPEL M.*, BRUCKENSTEIN, S.* and TANG, G. C.

"The Formation and Electroreduction of Silver Sulphide Films at a Silver Metal Electrode",

J. Electroanalytical Chemistry 261 (1989) 389-400.

HEPEL M.* and BRUCKENSTEIN, S.*

"Mechanistic Studies of the Deposition and Cathodic Stripping of Thioacetamide at a Silver Electrode in Alkaline Media",

Electroanalysis 1 (1989) 117-123.

HEPEL M.* and BRUCKENSTEIN, S.*

Dissociative Adsorption of Thiourea at a Polycrystalline Silver Electrode in Alkaline Media. *Electrochimica Acta* 32 (1987) 41-45.

HEPEL M. and TOMKIEWICZ, M.*

"Relaxation Impedance Spectrum Analysis of Galvanostatic Oxidation of Silver Electrodes",

J. Electrochemical Society 133 (1986) 1625-1629.

HEPEL M., TOMKIEWICZ, M.*, AND FOREST, C. H.

"Morphology of AgO Crystallites Deposited from Alkaline Solutions under Potential Step and Stimulated Pulse Potentiostatic Conditions",

J. Electrochemical Society 133 (1986) 468-475.

HEPEL M. AND TOMKIEWICZ, M.*

"Impedance Relaxation Spectrum Analysis of Oxidized Silver Electrodes",

J. Electrochemical Society 132 (1985) 32-38.

HEPEL M. and TOMKIEWICZ, M.*

"Study of the Initial Stages of Anodic Oxidation of Polycrystalline Silver in KOH Solutions",

J. Electrochemical Society 131 (1984) 1288-1294.

HEPEL M. and OSTERYOUNG, R. A.*

"Adsorption and Surface Reaction of 2-thiouracil on Silver Electrode",

J. Electroanalytical Chemistry 160 (1984) 217-231.

HEPEL M. and OSTERYOUNG, R. A.*

"Cathodic Stripping Analysis of 2-thiouracil Complicated by Slow Adsorption/Desorption Step. *J. Electroanalytical Chemistry* 149 (1983) 193-211.

HEPEL, T., HEPEL M., and OSTERYOUNG, R. A.*

"Thermodynamic and Photoelectrochemical Behavior of n-TiO₂.

J. Electrochemical Society 129 (1982) 2132-2141.

HEPEL, T., HEPEL M., and LESZKO, M.*

Preliminary Investigations on the Ion-selective Electrodes Based on the Structure of the Field Effect Transistors.

Zeszyty Naukowe Univ. Jagiell., Prace Chemiczne 26 (1981) 39-43.

HEPEL, T. and HEPEL M.*

"The Two-Contact Rotating Disc Electrode",

J. Electroanalytical Chemistry 112 (1980) 365-371.

HEPEL M.*

"Investigations of the Mechanism and Kinetics of Cu(II) Ions Reduction on the Non-stoichiometric Copper Sulphides",

J. Electroanalytical Chemistry 74 (1976) 37-51.

HEPEL M.* and HEPEL, T.

"The Anodic Dissolution of the Chalcocite in an Ammoniacal Environment",

J. Electroanalytical Chemistry 81 (1977) 161-170.

HEPEL, T. and HEPEL M.*

"Metastable Equilibria in the System Copper Sulphide - Sulphuric Acid-Ammonia - Water at 25^o",

Electrochimica Acta 22 (1977) 295-303.

HEPEL, T., HEPEL M. and LESZKO, M.*

"Non-stoichiometric Copper Sulphide Membrane Electrode",

Analyst (London) 102 (1977) 132-134.

HEPEL M.* and HEPEL, T.

"Investigations on the Mechanism and Kinetics of Electrode Processes Taking Place on Copper Sulphide Minerals",

Materials Science 2 (1976) 119-124.

HEPEL M. and POMIANOWSKI, A.*

"Investigations into the Electrochemical Oxidation of Chalcocite by RDE Method.

Zeszyty Naukowe Univ. Jagiell., Prace Chemiczne 18 (1973) 237-247.

HEPEL M., HEPEL, T., and POMIANOWSKI, A.*

"Hydrometallurgical Dissolution of Copper Sulphides in Oxygenated Solutions of Ammonium Sulfate and Ammonia",

Zeszyty Naukowe Univ. Jagiell., Prace Chemiczne 18 (1973) 213-221.

CYMERMAN, J., HEPEL M., HEPEL, T., and LESZKO, M.*

"Some Aspects of Electro-leaching of Metals from Sulphide Concentrates in Chloride Solutions",

Prace Naukowe Instytutu Chemi Nieorganicznej i Metalurgii Pierwiastkow Rzadkich, Politechnika Wroclawska 29 (1976) 61-76.

BIESZCZAD, T., HEPEL M.*, and HEPEL, T.

"Leaching of Silver from Copper Sulphide Concentrates in Chloride Solutions",

Prace Naukowe Instytutu Chemi Nieorganicznej i Metalurgii Pierwiastkow Rzadkich, Politechnika Wroclawska 29 (1976) 183-195.

HEPEL, T., HEPEL M., and POMIANOWSKI, A.*

"Hydrometallurgical Electro-extraction of Copper from Sulphide Ores",

Prace Naukowe Instytutu Chemi Nieorganicznej i Metalurgii Pierwiastkow Rzadkich, Politechnika Wroclawska 17 (1973) 105-122.

HEPEL, T., and HEPEL M.*

"Physiochemistry of Copper and Silver Dissolution from Sulphide Concentrates", Symp. "Modern Metallurgy of Copper", Glogow, 1974;

Electrorafinacja i Hydrometalurgia Miedzi 2 (1974) 77-95.

HEPEL, T., HEPEL M.*, and BIESZCZAD, T.

"Leaching of Copper and Silver from Lower Silesia Concentrates in Chloride Electrolytes",

Electrorafinacja i Hydrometalurgia Miedzi 2 (1974) 192-203.

HEPEL, T., HEPEL M., and POMIANOWSKI, A.*

"Thermodynamics of the Flotation Systems. Part I: An Attempt of Describing Adsorption Phases in the System Hg-KEtX-H₂O",

Physicochemical Problems of Mineral Processing 7 (1973) 23-41.

CHAPTERS IN BOOKS

HEPEL M.* and ANDREESCU S.*

"Oxidative stress and human health", Chapter in book: *Oxidative Stress: Diagnostics, Prevention, and Therapy Vol. 2*, M. Hepel, S. Andreescu (Eds.), ACS Symposium Series, Vol. 1200, Oxford University Press, Oxford, 2015, pp. 1-33; DOI: 10.1021/bk-2015-1200.ch001.

CHALUPA A. and HEPEL M.*

"Redox activity of oxidative stress-damping endogenous thiol biomolecules", Chapter in book: *Oxidative Stress: Diagnostics, Prevention, and Therapy Vol. 2*, M. Hepel, S. Andreescu (Eds.), ACS Symposium Series, Vol. 1200, Oxford University Press, Oxford, 2015, pp. 329-351; DOI: 10.1021/bk-2015-1200.ch014.

NOWICKA A.M.*, KOWALCZYK A., MATYSIAK E., and HEPEL M.*

"DNA damage by highly oxidizing environmental pollutants", Chapter in book: *Oxidative Stress: Diagnostics, Prevention, and Therapy Vol. 2*, M. Hepel, S. Andreescu (Eds.), ACS Symposium Series, Vol. 1200, Oxford University Press, Oxford, 2015, pp. 279-299; DOI: 10.1021/bk-2015-1200.ch012.

HEPEL M.*

"High Energy-Density Electric Double-Layer and Hybrid Supercapacitors Based on Graphene Composites", Chapter in: *Encyclopedia of Surface and Colloid Science*, Third Ed., P. Somasundaran (Ed.), Taylor & Francis, New York, 2016, pp. 1-16 (in press); DOI: 10.1081/E-ESCS3-120051485; ISBN 9781466590458.

HEPEL M.*

"Functional Gold Nanoparticles for Biointerfaces", Chapter in book: *Functional Nanoparticles for Bioanalysis, Nanomedicine & Bioelectronic Devices*, M. Hepel, C.J. Zhong (Eds.), ACS Symposium Series, Vol. 1112, Oxford University Press, Oxford, 2012, Chapter 6, pp. 147-176; ISBN 978-0-84122-775-0.

HEPEL M.*, BLAKE D., McCABE M., STOBIECKA M., and COOPERSMITH K.

"Assembly of Gold Nanoparticles Induced by Metal Ions", Chapter in book: *Functional Nanoparticles for Bioanalysis, Nanomedicine & Bioelectronic Devices*, M. Hepel, C.J. Zhong (Eds.), ACS Symposium Series, Vol. 1112, Oxford University Press, Oxford, 2012, Chapter 8, pp. 207-240; ISBN 978-0-84122-775-0, DOI: 10.1021/bk-2012-1112.ch008.

HEPEL M.*, STOBIECKA M.

"Detection of Oxidative Stress Biomarkers Using Functional Gold Nanoparticles", Chapter in a book *Fine Particles in Medicine and Pharmacy*, E. Matijevic [Ed.], Springer Science Publisher, New York, 2012, pp. 241-282.

HEPEL M.*, STOBIECKA M., NOWICKA A.

"Nanogravimetric and voltammetric DNA-biosensors for screening of herbicides and pesticides", Chapter in book: *Biosensors and Environmental Health*, V.R. Preedy, V. Patel (Eds.), CRC Press, Boca Raton, FL, 2012, pp. 230-255; ISBN 978-1-57808-735-8.

HEPEL M.*, STOBIECKA M., PEACHEY J., MILLER J.

"DNA-protective mechanisms of antioxidant glutathione intervention in catechol-mediated oxidative DNA damage in the presence of copper(II) ions", Chapter in book: *Oxidative Stress: Diagnostics, Prevention and Therapy*, S. Andreescu, M. Hepel (Eds.), ACS Symposium Series, Vol. 1083, Oxford University Press, Oxford, 2011, pp. 177-209.

STOBIECKA M., PRANCE A., COOPERSMITH K., HEPEL M.*

"Antioxidant effectiveness in preventing paraquat-mediated oxidative DNA damage in the presence of H₂O₂", Chapter in book: *Oxidative Stress: Diagnostics, Prevention and Therapy*, S. Andreescu, M. Hepel (Eds.), ACS Symposium Series, Vol. 1083, Oxford University Press, Oxford, 2011, pp. 211-233.

HEPEL M.*, STOBIECKA M.

"Novel DNA-Hybridization Biosensors for Studies of Atrazine Interactions with DNA", Chapter in: *Advances in Environmental Research*, Vol. 6, J.A. Daniels [Ed.], Nova Science Publishers, New York, 2011, pp. 253-298.

HEPEL M.*, STOBIECKA M.

"Detection of Oxidative Stress Biomarkers Using Novel Nanostructured Biosensors",
in: *New Perspectives in Biosensors Technology and Applications*, P.A. Serra (Ed.); ISBN 978-953-307-448-1; INTECH,
Vienna, 2011, pp. 343-372; DOI: 10.13140/2.1.4797.9524.

HEPEL M.*, STOBIECKA M.

Interactions of Atrazine with DNA,
Nova Science Publishers, New York, 2010, pp. 1-70.

HEPEL M.* et al.

Contributing coauthor to the encyclopedic dictionary "*Electrochemical Dictionary*", Editors: F. Scholtz, G. Inzelt, A. Bard,
Publisher: Springer Verlag, Heidelberg, Germany, 2008.

HEPEL M.*, PHILLIPS, A. and SLOTE, J.

"Photoelectrochemical Degradation in Azo Dyes", in: *Oxidation and Reduction Technologies for Water Treatment*, Vol. 44
No.2, American Chemical Society, Washington, D.C., 2004, pp. 277-279.

ITO K., CATALANO R., and HEPEL M.*

"Photoelectrochemical Degradation of Brilliant Cresyl Blue Dye on Nanostructured Semiconductor Electrodes", *Proceedings
of the Environmental Chemistry Division*, Vol. 43,
No. 2, American Chemical Society, Washington, D.C., 2003, pp. 1-4.

HEPEL M.* and SCENDO, M.

"Growth Kinetics of Multi-Layer CuEtX Films on Copper Piezoelectrodes", Chapter in book: *Thin Films: Preparation,
Characterization, Applications*, J. Stickney and M. Soriaga (Eds.), Kluwer Academic/Plenum Publishers, New York, 2002,
pp. 171-184.

MAYE, M, LUO, J., HEPEL M.*, and ZHONG, C.J.*

"Investigating Catalytic Properties of Composite Nanoparticles Assemblies", Chapter in book: *Nanophase and
Nanocomposite Materials IV*, S. Komarneni, G.Q. Lu, J. Matsushita, J. C. Parker, R.A. Vaia (Eds.), Vol. 703, Material
Research Society, Warrendale, PA, 2002, pp. 427-432.

LUO, J., MAYE, M.M., ZHONG, C.J.* and HEPEL M.*

"EQCN Study of Electrocatalytic Oxidation of Methanol at Nanostructured Catalysts", Chapter in book: *Thin Films:
Preparation, Characterization Applications*, J. Stickney and M. Soriaga (Eds), Kluwer Academic/Plenum Publishers, New
York, 2002, pp. 265-276.

LUO, J., HUANG, H., and HEPEL M.*

"Photoelectrochemical Behavior of p-ATP/PANi Film and Nanoparticulate p-ATP/PANi/TiO₂ Film on Au Electrodes",
Chapter 9 in book: *Conducting Polymers and Polymer Electrolytes. From Biology to Photovoltaics*, J. F. Rubinson and
H.B. Mark (Eds.), ACS Symposium Series Vol. 832, American Chemical Society, Washington, D.C., 2002, pp. 113-127.

HALAMEK, J, HEPEL M.* , and SKLADAL, P.*

"Immunosensors for Herbicide 2,4-Dichlorophenoxyacetic Acid", Chapter in book: *Chemical and Biological Sensors and
Analytical Methods*, K. Butler, P. Vanysek, S. Yamazoe (Eds), Vol. 18, Electrochemical Society, Pennington, NJ, 2001, pp.
669-678; ISBN: 978-1-56677-351-5.

KARIUKI, N., LUO, J., MOUSSA, L, ZHONG, C.J.* and HEPEL M.*

"Characterization of Nanostructured Films on Responsive Electrode Materials", Chapter in book: *Nanoparticulate Materials*,
H. Hofmann, M. Muhammed, R. Partch, M. Senna, R. K. Singh (Eds.), Vol. 704, Material Research Society, Warrendale, PA,
2001, pp. 291-293.

HEPEL M.*

"Electrode-Solution Interface Studied with Electrochemical Quartz Crystal Nanobalance", Chapter in book: ***Interfacial Electrochemistry. Theory, Experiment and Applications***", A. Wieckowski (Ed.), Marcel Dekker Inc., New York, 1999, pp. 599-630.

HEPEL M.*

"Composite Films of Nickel/Silicon Carbide", Chapter in book: ***Chemical Aspects of Electronic Ceramics Processing***, P.N. Kumta, A.F. Hepp, D.B. Beach, B. Arkles, J.J. Sullivan (Eds.), Vol. 495, Materials Research Society, Warrendale, PA, 1998, pp. 425-431.

HEPEL M.*, MAHONEY, C. and TANNAHILL, T.

"Electrodeposition and Characterization of Nickel-Composite Films", Chapter in book: ***Fundamental Aspects of Electrochemical Deposition and Dissolution Including Modeling***", M. Paunovic, M. Datta, M. Matosz, T. Osaka, J.B. Talbot (Eds.), Vol. 97-27, Electrochemical Society, Pennington, NJ, 1998, pp. 293-309.

HEPEL M.*, TANNAHILL, T., BAXTER, C., and MAHONEY, C.

"Formation and Characterization of Composite Ni/BN and Ni/SiC Films", Chapter in book: ***Applications of Surface and Interface Analysis***, I. Olefjord, L. Nyborg, D. Briggs (Eds.), John Wiley & Sons, Goteborg, Sweden, 1997, pp. 1059-1062.

HEPEL M.* and SHIYANOVSKAYA, I.

"Dye Photosensitization of Nanostructured Heterogeneous Photoelectrodes of Transition Metal Oxide Films", Chapter in book: ***Photochemistry***, K. Rajeshwar (Ed.), Vol. 97-201, Electrochemical Society, Pennington, NJ, 1997, pp. 141-151.

HEPEL M.* and SHIYANOVSKAYA, I.

"Transition Metal Oxide Film Photoelectrodes", Chapter in book: ***Electrode Materials and Processes for Energy Conversion and Storage IV***, S. Srinivasan and J. McBreen (Eds.), Vol. 97-13, Electrochemical Society, Pennington, NJ, 1997, pp. 317-327.

SHIYANOVSKAYA, I. and HEPEL M.*

"Hydrated Transition Metal Oxide Films for Reversible Switching in Near IR Region", Chapter in book: ***Materials for Optical Limiting II***, P. Hood, R. Pachter, K. Lewis (Eds.), Vol. 479, Material Research Society, San Francisco, 1997, pp. 185-190.

HEPEL M.* and SHIYANOVSKAYA, I.

"Bicomponent Transition Metal Oxide Photoelectrodes", Chapter in book: ***Optical Materials Technology for Solar Energy Conversion XV***, S. Deb, K. Lampert, M. Graetzel, and C. Granquist (Eds.), Vol. 3138, ***SPIE***, San Diego, CA, 1997, pp. 124-132.

HEPEL M.*

"The Electrocatalytic Oxidation of Methanol at Finely Dispersed Platinum Nanoparticles in Polypyrrole Films", Chapter in book: ***Electrode Processes VI***", A. Wieckowski, K. Itaya (Eds.), Vol. 96-8, Electrochemical Society, Pennington, NJ, 1996, pp. 456-480.

SHIYANOVSKAYA, I. and HEPEL M.*

"Proton Effects in Creation of Electrochromic Color Centers", Chapter in book: ***Electrochromic Materials***", K. Ho, C. Greenberg, D. MacArthur (Eds.), Vol. 96-24, Electrochemical Society, Pennington, NJ, 1996, pp. 119-130.

HEPEL M.*, TANNAHILL, T., and BAXTER, C.

"Composite Films of Copper/Boron Nitride and Nickel/Boron Nitride", Chapter in book: ***Electrochemically Deposited Thin Films***, M. Paunovic, D. Scherson (Eds.), Vol. 96-19, Electrochemical Society, Inc., Pennington, NJ, 1996, pp. 248-268.

SHIYANOVSKAYA, I. and HEPEL M.*

"Proton Effects in Creation of Electrochromic Color Centers", Chapter in book: ***Electrochromic Materials and Their Applications***", K. Ho, C. B. Greenberg, D. M. McArthur (Eds.), Vol. 96-24, Electrochemical Society, Pennington, NJ, 1996, pp. 119-130.

HEPEL M.*

"The Electrocatalytic Effect of Pt Nanoparticles/Polypyrrole Composite Films Towards Methanol Oxidation", *Proceedings of the International Symposium on Electrochemical Science and Technology*, Y.S. Fung (Ed.), The University of Hong Kong, 1995, pp. L3 1-18.

HEPEL M.*, CHEN, YI-MING and STIMMING, U.*

"Composite PPy/Pt Films as Potential Materials for Fuel Cells", *Proceedings of the First International Symposium on New Materials for Fuel Cell Systems*, O. Savadogo, P. R. Roberge, T. N. Veziroglu (Eds.), The Montreal University, Montreal, Canada, 1995, pp. 629-657.

HEPEL M.* and FIJALEK, J.

"Electrorelease of Drugs from Composite Polymer Films", Chapter in book: *Polymeric Drugs and Drug Administration*, R. Ottenbrite (Ed.), ACS Symposium Series, Vol. 545, Washington, D.C., 1994, pp. 79-97.

HEPEL M.*, CHEN, YI-MING, and STEPHENSON, R.

"Metallization of Polypyrrole Films", Chapter in book: *Electrochemically Deposited Thin Films II*, M. Paunovic (Ed.), Vol. 94-31, Electrochemical Society, Pennington, NJ, 1994, pp. 304-319.

HEPEL M.* and STEPHENSON, R.

"Removal of Residual Nickel Ions from Aqueous Solutions Using Conductive Polymer Films", Chapter in book: *Proceedings of the 15th AESP/EPA Pollution Prevention & Control Conference*, American Electroplaters and Surface Finishers Society, Orlando, FL, 1994, pp. 195-205.

HEPEL M.*, DENTRONE, L. and SEYMOUR, E.

"Incorporation of Redox Compounds into Polypyrrole Films", Chapter in book: *Polymers, Blends, and Interfaces*, I. Noda and D.N. Rubingh (Eds.), Elsevier, New York, 1992, pp. 385-405.

HEPEL M.*

"Application of Piezoelectric Sensor for Controlled Binding and Release of Drugs and Biomolecules from Conductive Polymer Matrix", Chapter in book: *Chemical Sensors*, Edison Sensor Technology Center, Cleveland, Ohio, 1990, pp. 35-37.

HEPEL M.*

"Adsorptive Stripping Voltammetry of Diethyldithiocarbamate Ions", *Proceedings of the International Electroanalytical Symposium*, Society for Electroanalytical Chemistry, Cherry Hill, NJ, 1986, pp. 163-166.

HEPEL, T., HEPEL M., and POMIANOWSKI, A.*

"Effect of the Galvanic Local Cells on the Oxidative Leaching of Metal Sulphides", Chapter in book: *Electrochemistry in Mineral and Metal Processing*, P. E. Richardson, S. Srinivasan, R. Woods (Eds.), Vol. 84-10, Electrochemical Society, Pennington, NJ, 1981, pp. 423-446.

HEPEL, T., HEPEL M., and OSTERYOUNG, R. A.*

"Photoelectrochemical Etching of n-TiO₂ Electrode in Fluoride Containing Solutions. Thermodynamics of the System Ti-HF-H₂O", Chapter in book: *Photoelectrochemistry: Fundamental Processes and Measurement Techniques*, W. L. Wallace, A. J. Nozik, and S.K. Deb (Eds.), Electrochemical Society, Pennington, NJ, 1981, pp. 327-348.

OTHER PUBLICATIONS

(not peer-reviewed)

- Conference Abstracts, Extended Abstracts, Preprints - ca. 360 publications (not listed, please see List of Presentations).
- Patents (7) - see: Patents, below.
- Web publications - include: AFM Lab, Raman Lab, EQCN Lab, conference materials (see website: <http://www2.potsdam.edu/hepelmr>).

PATENTS

HEPEL, T., HEPEL M., OKTAWIEC, M., and TOBOLIK, M.
"Hydrometallurgical Recovery of Copper-containing Raw Materials",
Pol. Pat. 88,382.

HEPEL, T., HEPEL M., BIESZCZAD, T., OKTAWIEC, M., and TOBOLIK, M.
"Selective Leaching of Copper and Silver from Copper-containing Sulphide Raw Materials with Chloride Electrolytes", Pol.
Pat 87,597.

HEPEL, T., HEPEL M., OKTAWIEC, M., and BIESZCZAD, T.
"Complex Electroextraction Dissolution of Metals from Sulfide Post-flotation Concentrates",
Pol. Pat. 92,617.

HEPEL, T., HEPEL M., LESZKO, M., SEWERYNSKI, B., WOJTOWICZ, J., and OTHERS.
"Hydrometallurgical Processing of Materials Containing Silver, Lead and Their Compounds Resulting from Leaching of
Copper from Sulfide Concentrates. Pol. Pat 97,320.

HEPEL, T., HEPEL M., and BIESZCZAD, T.
"Electrolyzer with a Rotating Cylindrical Anode for the Hydrometallurgical Electroextraction of Metals", Pol. Pat 86,202.

WALIGORA, B., HEPEL, T., HEPEL M., BIESZCZAD, T., and POMIANOWSKI, A.
"Recovery of Silver from Copper Sulfide Flotation Concentrates", Pol. Pat. 89,202.

WALIGORA, B., POMIANOWSKI, A., HEPEL, T., HEPEL M., BIESZCZAD, T.,
"Hydrometallurgical Processing of Flotation Concentrates and Other Raw Materials Containing Copper Sulfide Minerals. Pol.
Pat. 90,301.