

LIST OF PEER-REVIEWED PUBLICATIONS

(248 publications, including: 166 papers published in peer-reviewed journals, 19 invited papers in Special Issues, 44 chapters in books and 1 book, 4 edited books; * - senior Author) over 5135 citations, *h*-index: 41, *i10*-index: 94 (Google Scholar)

ILKHANI H.; ZHONG C.-J.; HEPEL M*.

“Magneto-Plasmonic Nanoparticle Grid Biosensor with Enhanced Raman Scattering and Electrochemical Transduction for the Development of Nanocarriers for Targeted Delivery of Protected Anticancer Drugs”

Nanomaterials **2021**, *11*, 1326;

DOI: [10.3390/nano11051326](https://doi.org/10.3390/nano11051326).

KURZATKOWSKA K.; PAZOS M.A.P.; HERSCHKOWITZ J.I.; HEPEL M*.

“Cancer-Targeted Controlled Delivery of Chemotherapeutic Anthracycline Derivatives Using Apoferritin Nanocage Carriers”

International Journal of Molecular Science **2021**, *22*, 1262;

DOI: [10.3390/ijms22031362](https://doi.org/10.3390/ijms22031362).

HEPEL M.

“Magnetic nanoparticles for nanomedicine”

Magnetochemistry. **2020**, *6*, 3; **Invited paper for the special issue.**

DOI: [10.3390/magnetochemistry6010003](https://doi.org/10.3390/magnetochemistry6010003).

RUNNING L., ESPINAL R. and HEPEL M.*

"Controlled release of targeted chemotherapeutic drug dabrafenib for melanoma cancers monitored using surface-enhanced Raman scattering (SERS) spectroscopy"

Mediterranean Journal of Chemistry, *7*(1) (2018) 18-27;

DOI: [10.13171/mjc71/01803171500-hepel](https://doi.org/10.13171/mjc71/01803171500-hepel)

HEPEL M.* and STOBIECKA M.

"Supramolecular Interactions of Oxidative Stress Biomarker Glutathione with Fluorone Black"

Spectrochimica Acta A, *192* (2018) 146-152;

DOI: [10.1016/j.saa.2017.11.017](https://doi.org/10.1016/j.saa.2017.11.017).

SANTIAGO T., DeVAUX R.V., KURZATKOWSKA K., ESPINAL R., HERSCHKOWITZ J.I., and HEPEL M.*

"Surface-enhanced Raman scattering investigation of targeted delivery and controlled release of gemcitabine"

International Journal of Nanomedicine, *12* (2017) 7763-7776;

DOI: [10.2147/IJN.S149306](https://doi.org/10.2147/IJN.S149306).

SMITH M. and HEPEL M.*

"Controlled release of targeted anti-leukemia drugs azacitidine and decitabine monitored using surface-enhanced Raman scattering (SERS) spectroscopy"

Mediterranean Journal of Chemistry, *6*(4) (2017) 125-132;

DOI: [10.13171/mjc64/01706081223-hepel](https://doi.org/10.13171/mjc64/01706081223-hepel)

KURZATKOWSKA K., SANTIAGO T., and HEPEL M.*

"Plasmonic nanocarrier grid-enhanced Raman sensor for studies of anticancer drug delivery"
Biosensors and Bioelectronics, 91 (2017) 780-787.

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"
Chemicke 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 TEWKSBUURY 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 TEWKSBUURY, 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°",
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 Chemii Nieorganicznej i Metalurgii Pierwiastków 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 Chemii Nieorganicznej i Metalurgii Pierwiastków 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 Chemii Nieorganicznej i Metalurgii Pierwiastków 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-ECS3-120051485; 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.