DESCRIPTION OF SIGNIFICANT PROFESSIONAL PERFORMANCE

including

CURRICULUM VITAE

and

CHOSEN SCIENTIFIC, RESEARCH, EDUCATION AND ORGANIZATIONAL ACHIEVEMENTS

***PROF. DR. D.SC. ENG. M.D.* HALINA PODBIELSKA**

PROF. N. TECH. DR HAB. N. FIZ. INŻ. LEK. MED

Chair of the Department of Biomedical Engineering, Faculty of Fundamental Problems of Technology

Wrocław University of Science and Technology

BRIEF CV

Prof. Dr. Halina Podbielska D.Sc. Ph.D. Eng. M.D.

Prof. Halina Podbielska received her M.Sc. and Engineering Degree in Applied Physics/Optics in 1978 with from the Faculty of Fundamental Problems of Technology of Wroclaw University of Technology (WrUT), and her Ph.D. degree in Physics from the Institute of Physics in 1982, both awarded by a special Award for Excellence. She also received her M.D. degree from the Faculty of Medicine of Medical University of Wrocław in 1987.

In 1992 she received her Habilitation degree in Applied Physics and became the Professor of Bio-Optics and Head of the Bio-Optics Group at the Institute of Physics Fundamental Problems of Technology of Wroclaw University of Technology.

In 1994 she completed a post-graduate study in business and management at the Faculty of Informatics and Managing WrUT conducted by the Central State University of Connecticut/USA. For several years she was engaged in teaching of marketing strategies at the Center for Continuous Education of WrUT.

In 2002 she received the scientific title Professor of Technical Science awarded by the President of Poland and since then, she is a full Professor (*Ordinarius*).

In 2007 Prof. Podbielska with her Group joined the Department of Biomedical Engineering and Instrumentation of the Faculty of Fundamental Problems of Technology and her activity leaded in the same year to the creation of the Institute of Biomedical Engineering and Instrumentation. In September 2008 she took upon herself the duty of the Director of this Institute. In 2012 she was elected for the next years to be the Institute Director. After organizational changes at the Wroclaw University of Technology, which is called now the Wroclaw University of Science and Technology WrUST, she became a chair of the Biomedical Engineering Department.

Additionally, in years 2007 - 2014 she was appointed as full professor of the Department of Physical Therapy at the Physiotherapy Faculty of the Wroclaw University School of Physical Education, Faculty of Physiotherapy, where she was teaching students of Physiotherapy and Cosmetology on modern aspects of physical medicine with special emphasis on modern biophotonics and electronics.

Her professional experiences include biomedical engineering with emphasis on medical application of optics, nanomaterials and physical medicine. She is an author or co-author of over 330 publications. She holds 9 registered patents. HI in Google Scholar is 16, in Web of Science Core collection 10, HI including citation of edited Proceedings Books is 14.

Prof. Podbielska was visiting scientist in several scientific institutions worldwide: as an A. v. Humboldt fellow at the University of Frankfurt/Main (1984-85), University of Muenster (1985-86), and at the Weizmann Institute of Science, Israel (1989-1990). In years 2002-2005 she was a visiting professor at the Institute of Optics of Technical University in Berlin. She was also visiting scientist at the Charite Medizin University of Berlin (2005) working at the Medical Laser Technology Center LMTB, Germany.

She was giving seminars or short courses at several Universities and scientific Institutions in Poland, Russia, Israel, Germany, Italy, Mexico, Brasilia and in the USA. She was an organizer and chair of the series of international Conferences on Biomedical Optics and Biomedical Engineering and an editor of number of Proceedings books.

In 1995, she launched a new Polish Journal Acta Bio-Optica et Informatica Medica and she is there the Editor-in Chief. From 1994 for several years she was organizing courses on medical informatics and medical optics for medical staff in Poland.

She is a Board Member of Polish Society of Biomedical Engineering and Polish Society of Laser and Photodynamic Medicine and member of many internationally recognized bodies (OSA, SPIE, OWLS, EPMA).

Halina Podbielska is also a supervisor of many Ph.D. and M.Sc. theses in biomedical engineering and physical medicine, many of them awarded for excellence.

She is a member of the Scientific Council of Institute of Biomedical Engineering and Biocybernetics of Polish Academy of Science in Warsaw and a member of The Committee on Medical Physics, Radiobiology and Diagnostic Imaging of the Polish Academy of Science (Div. 6 – Medical Sciences). She is there a Chair of the Commission of Biomedical Impact of Non-ionizing Radiation. Prof. Podbielska is also appointed as a member of The Committee on Biomedical Engineering of Polish Academy of Science (Div. 4 – Technical Sciences) and she is the Chair of The Commission for Promotion of Biocybernetics and Biomedical Engineering.

She is/was acting as an expert for grant evaluation in 6. and 7. Framework Program and Horizon2020 of EC and grants reviewer of National Institutes of Health, USA. From 2008 she a member of the Academic Advisory Board and Representative of Biomedical Engineering of EPMA (European Association for Predictive, Preventive and Personalized Medicine and an associate editor of EPMA Journal.

CURRICULUM VITAE

Name	Halina Podbielska
Place and date of birth	Jelenia Góra, 01.03.1954
Primary University address	Department of Biomedical Engineering, Wrocław University of Science and Technology, Wybrzeże Wyspiańskiego 27, 50 370 Wrocław/Poland
E-mail	halina.podbielska@pwr.wroc.pl, info@halinapodbielska.pl
Family status	married, one daughter born in 1984, expert for banking/factoring and PhD student of the Wroclaw University School of Physical Education

EDUCATION and DEGREES

1978	M.Sc.Eng with Honors in Fundamental Problems of Technology/ Applied Physics	Wrocław University of Technology, Faculty of Fundamental Problems of Technology
1982	Ph.D. in Physics, awarded for Excellence	Wrocław University of Technology, Institute of Physics
1987	M.D.	Medical Academy of Wrocław, Faculty of Medicine
1992	Dr. Habil. in Applied Physics (Assoc. Professorship)	Wrocław University of Technology, Faculty of Fundamental Problems of Technology
1994	Certificate in Business Studies	School of Business, Central State University of Connecticut and Faculty of Informatics and Management of the Wrocław University of Technology
1998	Professor of Bio-Optics	Institute of Physics, Wrocław University of Technology
2002	Full Professor in Technical Sciences	Title assigned from the President of Poland

PROFESSIONAL CAREER

in Poland

1973-1978	Study of Physics - Applied Optics at the Faculty of Fundamental Problems of Technology, Wrocław University of Technology
1978-1982	Ph.D. student at the Institute of Physics, Wrocław University of Technology
1988	Physician, II Surgical Clinic, Medical Academy of Wrocław
1986- 1992	Associated Researcher, Institute of Physics, Wrocław University of Technology
1992-1998	Assoc. Professor, Head of Bio-Optics Group, Institute of Physics, Wrocław University of Technology
1998-2002	Professor, Head of Bio-Optics Group, Institute of Physics, Wrocław University of Technology
2002-2007	Full Professor, Head of Bio-Optics Group, Institute of Physics, Wrocław University of Technology
2007-	Full Professor, Head of Bio-Optics Group, Institute of Biomedical Engineering and Instrumentation, Wrocław University of Technology
2007-	Professor at the Dept. of Physical Therapy, Faculty of Physiotherapy, Wroclaw University School of Physical Education
2008-2012	Director of the Institute of Biomedical Engineering and Instrumentation, Wrocław
2012-2014	University of Technology
2014-	Chair of the Biomedical Engineering Department, Wrocław University of Science and Technology

Abroad

1980	Graduate Research Assistant, Institute of Physics, University of Frankfurt, Frankfurt/Main, Germany, 4 months research stay
1984-1985	Research Fellow of the Alexander von Humboldt Foundation at the Institute of Physics, University of Frankfurt/Main
and 1986	in the Department of Biomedical Biophysics, Throat-Nose-Ear Clinics, University of Muenster, West Germany
1987	1 month, research stay in Clinics of Traumatology, University of Muenster
1988	Visiting Scientist (1 month), Academy of Science of Russia, Leningrad (today St. Petersburg) and Novosibirsk
1989-1991	Visiting Scientist, Department of Electronics, Weizmann Institute of Sciences, Rehovoth, and volunteer Physician at the Bellinson Hospital, Heart Institute, Israel
2002-2004	Visiting Professor, Technical University of Berlin, Institute of Optics
2005, 2006	Visiting Professor, Technical University of Berlin, Institute of Optics and visiting scientists at the Medicine Charite University Berlin

Other

1994-2000	Consultant for Medical Lasers and Computers and Director for Lasers in Medicine Courses in EOS Educational-Scientific Center in Wrocław
1995-	Editor-in-Chief „Acta Bio-Optica et Informatica Medica" Biomedical Engineering
1996-2000	Owner and CEO of General Consulting company, consulting services in medicine, lasers and optical security and protection of documents and brand marks

LANGUAGES

English, German, Russian and mother tongue: Polish

PROFESSIONAL SOCIETIES

Optical Society of America, International Society of Optical Engineers SPIE, International Biomedical Optics Society, Optics within Life Sciences Society, A. von Humboldt Research Fellows Society, Polish Society of Biomedical Engineering, Polish Society of Photodynamic and Laser Medicine, European Association for Predictive, Preventive and Personalized Medicine.

SOCIAL ACTIVITY

Member of the LIONS CLUB Wroclaw Wratislavia, founding member, Past president (1999) – charity activity for education for children and youths.

HOBBY

skiing, tennis, windsurfing, political literature

HONORS AND AWARDS

- Siemens Award for Excellence for "Biophotonics as a branch of Biomedical Engineering: application of light for examination of biological and nanomaterials", 2011
- Honorary Emblem of the Faculty of Physiotherapy, Wroclaw University School of Physical Education, 2010
- Honorary Emblem of the Wrocław University of Technology – 100 years of Technical Universities in Wroclaw, 2010
- M.Sc. Diploma with Honors, 1978
- Special Award for the Excellence for Ph.D. Thesis, 1982
- Alexander von Humboldt Foundation Fellowship 1984/85, 1986, 2005

- Award of the Rector of Wrocław University of Technology for scientific achievements, several times
- Award of the Director of the Institute of Physics for the scientific achievements, several times
- Member of the Scientific Committee of Biomedical Optics Conferences, several times since 1991
- Editor-in Chief *Acta Bio-Optica et Informatica Medica*, since 1995
- Scientific Board member of the international *Journal of Biomedical Optics* 1996-2006
- Associated Editor of the international EPMA *Journal* since 2008
- Silver Cross of Merit awarded by the President of Poland, 2002
- **Gold Medal** on the 52nd Word Exhibition of Innovation, Research and New Technology - Brussels Eureka, 2003. For the invention: ***Development of photodynamic therapy and diagnosis for cancerous and non-cancerous tissues obtained with chlorophyll derivatives and semiconductor laser system***, *together with Prof. W. Stręk team INTiBS PAN.*
- Silver Emblem of Wrocław University of Technology, 2006
- Member of Scientific Council of Institute of Biomedical Engineering and Biocybernetics of Polish Academy of Science in Warsaw, since 2007
- Member of The Committee on Medical Physics, Radiobiology and Diagnostic Imaging of Polish Academy of Science (Div. 6 – Medical Sciences), since 2008
- Chair of the Commission of Biomedical Impact of Non-ionizing Radiation, The Committee on Medical Physics, Radiobiology and Diagnostic Imaging of Polish Academy of Science, since 2008
- The Committee on Biomedical Engineering of Polish Academy of Science (Div. 4 – Technical Sciences)
- Expert of European Commission, 6. and 7. Framework Program, Horizon2020 since 2003
- Grant reviewer of National Institute of Health, USA, 2008

- Honors and Awards for scientists working under the guidance of Professor Halina Podbielska

Awarded PhD theses:

- **Dr inż. Matthias Rottenkolber**, Carrier Frequency Deflectometry for High Precision Measurement of Ophthalmic Surfaces - a New Method for Detecting the Corneal Topography, Institute of Physics, WrUT, 1996.
- **Dr Ewa Boerner**, Ocena efektywności laseroterapii metodą podwójnej ślepej próby/Evaluation of efficacy of lasertherapy in double blind studies, AWF, Wrocław Univ. School of Physical Education, Wrocław, 1999**.**
- **Dr inż. Damian Andrzejewski**, Pomiar czasu życia transfotoików metodą dwuczęstotliwościowej modulacji fali wzbudzającej w zol-żelowych czujnikach światłowodowych/Measurements of lifetime of transphotoics by the double frequency modulation of excited wave in sol-gel fiberoptics sensors, Institute of Physics, WrUT, 2000
- **Dr inż. Agnieszka Ulatowska-Jarża**, Opracowanie projektu optody enzymatycznej w oparciu o wyniki badań własnych właściwości matryc zol-żelowych/Construction and examination of properties of sol-gel optode for urea detection, Institute of Physics, WrUT, 2001
- **Dr inż. Joanna Bauer**, Biometryczne systemy rozpoznania osób na podstawie obrazu termowizyjnego twarzy/ Biometrics systems for recognition by face thermal imaging, Institute of Physics, WrUT, 2004
- **Dr inż. Katarzyna Wysocka-Król,** Wytwarzanie domieszkowanych nanocząstek zol-żelowych i badanie ich właściwości fotofizycznych i biologicznych/ Doped sol-gel based nanoparticles and their photophsical and biological properties, Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, 2012.
- **Dr inż. Elżbieta Szul,** Badanie wpływu zmian geometrii i właściwości biomechanicznych rogówki oka po zabiegu laserowej korekcji refrakcji na tonometryczny pomiar ciśnienia wewnątrz-gałkowego/

Influence of corneal geometry and biomechanics after laser refraction surgery on intraocular pressure measured by tonometry, Faculty of Mechatronics, Warsaw University of Technology, Warsaw, 2013

- **Dr inż. Igor Buzalewicz,** Optyczne techniki identyfikacji bakterii chorobotwórczych / Optical techniques for identification of pathogenic bacteria, Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, 2013.
- **Dr inż. Agnieszka Suchwałko,** Zastosowanie analizy statystycznej do identyfikacji bakterii na podstawie widm dyfrakcyjnych kolonii bakterii/ Statistical analysis for bacteria identification from diffraction images, Faculty of the Fundamental Problems of Technology, WrUST, 2016

Other awards:

Dr inż. Agnieszka Ulatowska-Jarża:

- Fellowship of Alexander von Humboldt Foundation, 2003-2004.
- Fellowship of Polish Science Foundation – 2003.
- Award of *Czesław M. Rodkiewicz Scholarship Foundation* for promoting Polish PhD students working at the edge of exact science and medicine – 2000.

Dr inż. Damian Andrzejewski

- Siemens Promotional Award – 2000

Dr inż Joanna Bauer

- POLITYKA *Journal Award*, Laureatka Konkursu POLITYKI „Zostańcie z nami", nominowana przez Prof. M. Kleibera / nominatem by prof. M. Kleiber – 2003
- Siemens Promotional Award – 2005

Mgr inż. Katarzyna Wysocka-Król

- Award of *Czesław M. Rodkiewicz Scholarship Foundation* for promoting Polish PhD students working at the edge of exact science and medicine – 2008.

Supervising of PhDs and M.Sc. THESES

Promoted PhD theses

Professor Halina Podbielska was a supervisor of 11 completed until 2016 PhD theses, among them 10 were awarded with a special Award for Excellence.

Promoted Master theses

Professor Podbielska was a supervisor of more than 120 MSc theses in Biomedical Engineering and in Physical Medicine.

ORGANIZATION EXPERIENCES

Conferences organization, chairing the conferences, member of Scientific Committees

1.	Chairing *Holography, Interferometry and Optical Pattern Recognition in Biomedicine*	Los Angeles, 1991
2.	Chairing *Holography, Interferometry and Optical Pattern Recognition in Biomedicine*	Los Angeles, 1992
3.	Chairing *Holography, Interferometry and Optical Pattern Recognition in Biomedicine*	Los Angeles, 1993
4.	Co-chairing *Light and Biological Systems*	Wrocław, 1993

5.	Co-chairing *Microscopy, Interferometry and Holography in Medicine*	Budapest, 1993
6.	Co-chairing *Clinical Applications of Modern Imaging Technologies*	Los Angeles, 1994
7.	Co-chairing *Optical and Imaging Techniques in Biomedicine*	Lille, 1994
8.	Chairing *Optical Biophysics*	San Jose, 1995
9.	Co-chairing *Optical and Imaging Techniques for Biomonitoring*	Barcelona, 1995
10.	Co-chairing *Biomedical Sensing, Imaging and Tracking Technologies*	San Jose, 1996
11.	Co-chairing *Optical and Imaging Techniques for Biomonitoring II*	Wiedeń, 1996
12.	Member of the Committee *Tunable Solid State Lasers*	Wrocław, 1996
13.	Co-chairing *Coherence Domain Optical Methods in Biomedical Science and Clinical Applications*	San Jose, 1997
14.	Co-chairing *Optical and Imaging Techniques for Biomonitoring III*	San Remo, 1997
15.	Member of the Committee Biomedical Optics Symposia '98, *Conference on Biomedical Sensing and Imaging Technologies*	San Jose, 1998
16.	Co-chairing *Optical and Imaging Techniques for Biomonitoring IV*	Stockholm, 1998
17.	Co-chairing *Biomedical Laser Metrology and Applications*, LASER 1999	Munich, 1999
18.	Member of the Committee OWLS (Optics within Life Science Society)	Sydney, 2000
19.	Scientific Committee ASCOS (Advanced Short Course on Optical Chemical Sensors)	from 1999 until 2010
20.	Scientific Committee EUROPTRODE	from 2000
21.	Co-chairing *BIOPHOTONICS Instrumentations and Analysis*	Singapore, 2001
22.	Chair of ASCOS 2002	Wrocław, 2002
23.	Co-chairing Polish-German Symposium on *Optoelectronics Application in Medicine and Environemental Protection*	Wrocław, 2002
24.	Co-chairing New trends in PDD and PDT	Wrocław, 2003
25.	Scientific Committee OWLS (Optics within Life Science Society)	Hawana, 2004 Singapur, 2008
26.	Scientific Committee Symposium on Photonics Technologies for 7th Framework Program OPERA	Wrocław, 2006
27.	Scientific Committee Polish Biomedical Conferences	several times, since 2003
28.	Scientific Committee Medical Physics Symposium	several times, since 2003
29.	Scientific Committee Symposium 9th International Conference on Biomedical Engineering (SYMBIOSIS 2008)	2008,
30.	Honorary Committee of I Conference on Education in Biomedical Engineering in Poland/	Kraków, 2008
31.	Chairing Humboldt Kolleg Nutraceutics, Biomedical Remedies and Physiotherapeutic Methods For Prevention Of Civilization-Related Diseases	Wrocław 2011
32.	Scientific Committee World Congress of Predictive, Preventive and Personalized Medicine	Bonn, 2011, Brussels 2013, Bonn 2015
33.	Chairing Current technical ideas in biological and medical sciences	Wrocław 2012

INTERNATIONAL EXPERIENCES

Prof. H. Podbielska experiences in international cooperation resulted from a long-term collaboration with many scientific institutions abroad, active participation in Scientific Committees of international symposia, chairing the international conferences, conducting joint projects.

Institute of Physics. J.W. Goethe University Frankfurt/ Main, scientific Assistant, investigations on image plane and rainbow holography (1980)

Institute of Physics. J.W. Goethe University Frankfurt/ Main, Alexander von Humboldt Research Fellow, image plane and rainbow holography (1984)

Biophysics Laboratory, Münster University, Alexander von Humboldt Research Fellow, holographic interferometry in experimental surgery, holographic endoscopy for skull bones examination, long bones and fixators characterization by holographic and speckle interferometry (1984-1985, 1986).

Clinics of Traumatology, Münster University, bones fixators characterization by holographic and speckle interferometry, (several weeks in 1986, 1987, 1988, 1992).

Forensic Medicine Institute, Münster University, hyoid bone examination by means of speckle photography (several weeks in 1992).

The Weizmann Institute of Science, three-dimensional endoscopy (1989-1990).

Univeristy Kingston upon Thames, Tempus cooperation, teaching on holographic interferometry, guiding BSc students (1992,1993)

Institute of Optics, Berlin Technical University, visiting professor, Medical applications of sol-gel materials, also with cooperation with LMTB (Laser Medical Technology Center) (2002-2004).

Institut für Biomedizinische Technik und Physik (WE09), Charité - Universitätsmedizin Berlin, The joint project, Research and Development Project „Multilayer interferometric spectrometer on the basis of porous silicon" (2004-2005).

Laser Medizin Technologie, LMTB Berlin, Sol-gel applicators for laser therapies (several times in 2002-2007, also Group members: Dr. A. Ulatowska-Jarża was the A. v. Humboldt Research Fellow at LMTB, Dr J. Bauer, Dr I. Holowacz, MSc K. Wysocka conducted there some examinations for several weeks),

Materials and Surface Science Institute, University of Limerick, preparation of joint proposals for 7. Framework Program of EU, lectures, joint seminars (short visits in 2007, Group Member Dr J. Bauer was visiting Limerick for several months).

Cooperation 2008 – 2011 in frame of the project BioElectricSurface, Electrically modified biomaterials surface", funded by 7. Framework Program of EC, Nanosciences, Nanotechnologies, Materials and new Production Technologies. Project coordinator at WrUT.

Marie Curie Industry-Academia Partnerships and Pathways (IAPP), EPICSTENT - Antibody-functionalised STENT. Project coordinator at WrUT. Start: 2013.

COORDINATOR OF RECEIVED GRANTS

COORDINATOR in Poland OF RECEIVED GRANTS (international)

2004-2005 - Institut für Biomedizinische Technik und Physik (WE09), Research and Development Project „Multilayer interferometric spectrometer on the basis of porous silicon", Charité - Universitätsmedizin Berlin, Campus Benjamin Franklin, Fabeckstrasse 60 – 62, 14195 Berlin

2006-2007 –grant DAAD – MNISW, Sol gel applicators for enhanced laser therapies, Charité Universitätsmedizin Berlin, Campus Benjamin Franklin, Fabeckstrasse 60 – 62, 14195 Berlin

2008 – 2011, cooperation with University Limerick, "Electrically modified biomaterials surface", 7. Framework, Nanosciences, Nanotechnologies, Materials and new Production Technologies

2013-2017 Marie Curie Industry-Academia Partnerships and Pathways (IAPP), EPICSTENT - Antibody-functionalised STENT. Project coordinator at WrUST. Start: 2013.

COORDINATOR OF RECEIVED GRANTS (national)

2010-2012, Zastosowanie analizy światła rozproszonego do identyfikacji kolonii bakterii chorobotwórczych, projekt promotorski, N NN 505557739, Analysis of the scattered light for the identification of bacteria colonies

2010-2012, Badanie wpływu zmian geometrii i właściwości biomechanicznych rogówki oka po zabiegu laserowej korekcji refrakcji na tonometryczny pomiar ciśnienia wewnątrzgałkowego, projekt promotorski, N N518406738, Influence of the corneal geometry and biomechanical features changes after laser refractive surgery on the intraocular pressure

2008-2011, Badania nad dozymetrią światła i światłouczulaczy w diagnostyce fotodynamicznej na przykładzie hodowli komórkowych HeLa jako modelu zmian nowotworowych w obrębie szyjki macicy, projekt promotorski N N518 427736, Dosimetry of light and photosensitizers in PDD on HeLA cells as model cancerous lesions

2008-2011, Wytwarzanie domieszkowanych nanocząstek zol-żelowych i badanie ich właściwości fotofizycznych i biologicznych projekt promotorski N N518 327335, Doped sol-gel nanomaterials and their photophysical and biological characteristics

2003-2006 - grant KBN nr 4T11E 01124, tytuł projektu „Badanie właściwości fizycznych i biologicznych biomateriałów zol-żelowych do zastosowania w interstycjalnej terapii fotodynamicznej", zakończony. Examination of physical and biological properties of sol-gel materials for interstitial PDT

2002-2005 - grant KBN nr 4T08A 01922, tytuł projektu: „Konstruowanie światłowodowych aplikatorów zol-żelowych i badanie ich właściwości", projekt promotorski, Interstitial fiberoptics sol-gel applicators

2000-2003 - grant KBN nr 8T11E 03719, tytuł projektu: „Opracowanie metody rozpoznawanie twarzy ludzkiej na podstawie obrazu termalnego", projekt promotorski zakończony, Human face recognition based on thermal imaging

2000-2002 - grant KBN nr 2P03B 00819, tytuł projektu: „Wykorzystanie zjawiska rozpraszania światła do badania struktury materiałów zol-żelowych i polimerycznych", Light scattering for sol-gel and polymers characterization

1998-2001 - grant KBN nr 8T11E 02915, tytuł projektu „Badanie i modelowanie właściwości optod zol-żelowych czujników światłowodowych", Examination and modeling of sol-gel optodes for fiberoptic sensors

List of edited Conference Proceedings on Biomedical Optics

1. Biophotonics Instrumentation and Analysis, A. Chiou, H. Podbielska. S. Jacques, Proc. SPIE, vol. 4597 (2001).
2. Optical and Imaging Techniques for Biomonitoring IV, eds. H.J. Foth, R. Marchesini, H. Podbielska, Proc. SPIE, Europto Series, vol. 3567, (1999).
3. Optical and Imaging Techniques for Biomonitoring III, eds. H.J. Foth, R. Marchesini, H. Podbielska, Proc. SPIE, Europto Series, vol. 3196, (1998).
4. Coherence Domain Optical Methods in Biomedical Science and Clinical Applications, V. Tuchin, H. Podbielska, B. Ovryn, SPIE Proc. Vol. 2981, (1997).
5. Biomedical Sensing, Imaging and Tracking Technologies, eds. B.Lieberman, H. Podbielska, T. Vo Dinh, Proc. SPIE, vol. 2676, (1996).
6. Optical and Imaging Techniques for Biomonitoring II, eds. H.J. Foth, R. Marchesini, H. Podbielska, Proc. SPIE, Europto Series, vol. 2927, (1996).
7. Optical Biophysics", ed. H. Podbielska, Proc. SPIE, vol. 2390, (1995).
8. Optical and Imaging Techniques for Biomonitoring, eds. H.J. Foth, R. Marchesini, H. Podbielska, Proc. SPIE, Europto Series, vol. 2628, (1995).

9. Clinical Applications of Modern Imaging Technologies II, eds. L. Cerullo, K. Heiferman, H. Liu, H. Podbielska, A. Wist, L. Zamorano, Proc. SPIE 2132 (1994).
10. Optical and Imaging Techniques in Biomedicine, eds. H.J. Foth, A. Lewis, H. Podbielska, M. Robert-Nicaud, H. Schneckenburger, A. Wilson, Proc. SPIE, Europto Series, vol. 2329, (1994).
11. Holography, Interferometry and Optical Pattern Recognition in Biomedicine III ,ed. H. Podbielska, Proceedings SPIE vol. 1889, (1993)
12. Interferometry and Holography in Medicine, eds. A. Fercher, H. Podbielska, Europto Series, Proc. SPIE vol. 2083, (1993)
13. Holography, Interferometry and Optical Pattern Recognition in Biomedicine II, ed. H. Podbielska, Proceedings SPIE vol. 1647, (1992).
14. Holography, Interferometry and Optical Pattern Recognition in Biomedicine, ed. H. Podbielska, Proceedings SPIE vol. 1429, (1991).

PUBLICATIONS

(List od publications as registered in the Library of Wroclaw University of Science and Technology, the whole list may be downloaded from:
http://apin2.bg.pwr.wroc.pl/aleph-test/Tabela.aspx?request=wne=297167&baza=TUR02WEB&nadawca=http://apin2.bg.pwr.wroc.pl/Aleph/zamknij.htm

ResearcherID: A-7311-2012

https://scholar.google.pl/citations?user=blU6g94AAAAJ&hl=pl

Some selected publications

1. **Buzalewicz Igor, Kujawińska Małgorzata*, Krauze Wojciech*, Podbielska Halina:** Novel perspectives on the characterization of species-dependent optical signatures of bacterial colonies by digital holography / Igor Buzalewicz [i in.]. PLoS ONE [Dokument elektroniczny]. 2016, vol. 11, nr 3, art. e150449, s. 1-18, 8 rys., bibliogr. 31 poz.
   Lokalizacja elektroniczna: http://dx.doi.org/10.1371/journal.pone.0150449
   Punktacja MNiSW z 2015: 40; 2016: 35
   IF - 03.057 (2015)

2. **Foerster Aleksandra, Hołowacz Iwona, Kumar G. B. Sunil*, Anandakumar S*, Wall J. G*, Wawrzyńska M*, Paprocka Maria*, Kantor A*, Kraskiewicz H*, Olsztyńska-Janus Sylwia, Hinder S. J*, Biały Dariusz*, Podbielska Halina, Kopaczyńska Marta:** Stainless steel surface functionalization for immobilization of antibody fragments for cardiovascular applications / Foerster [i in.]. Journal of Biomedical Materials Research. Part A. 2016, vol. 104, nr 4, s. 821-832, 10 rys., bibliogr. 63 poz.
   Lokalizacja elektroniczna: http://dx.doi.org/10.1002/jbm.a.35616
   Punktacja MNiSW z 2015: 35; 2016: 35
   IF - 03.263 (2015)

3. **Przybyło Magdalena, Głogocka Daria, Dobrucki Jerzy*, Frączkowska Kaja, Podbielska Halina, Kopaczyńska Marta, Borowik Tomasz P, Langner Marek:** The cellular internalization of liposome encapsulated protoporphyrin IX by HeLa cells / Magdalena Przybylo [i in.]. European Journal of Pharmaceutical Sciences. 2016, vol. 85, s. 39-46, 6 rys., 2 tab., bibliogr.[39] poz.
   Lokalizacja elektroniczna: http://dx.doi.org/10.1016/j.ejps.2016.01.028
   Punktacja MNiSW z 2015: 35
   IF - 03.773 (2015)

4. **Głogocka Daria, Noculak Agnieszka, Pucińska Joanna, Jopek Wojciech, Podbielska Halina, Langner Marek, Przybyło Magdalena:** Analysis of metal surfaces coated with europium-doped titanium dioxide by laser induced breakdown spectroscopy / Daria Głogocka [i in.]. Acta of Bioengineering and Biomechanics. 2015, vol. 17, nr 3, s. 33-40, 5 rys., bibliogr. 25 poz.
   Lokalizacja elektroniczna: http://dx.doi.org/10.5277/ABB-00138-2014-03

Lokalizacja elektroniczna: http://www.actabio.pwr.wroc.pl/17315.php
Punktacja MNiSW z 2014: 15; 2015: 15
IF - 00.767

5. **Boerner Ewa*, Bauer Joanna, Kuczkowska Magdalena*, Podbielska Halina, Ratajczak B*:** Comparison of the skin surface temperature on the front of thigh after application of combined red-IR radiation and diadynamic currents executed in a different sequence / Ewa Boerner [i in.]. Journal of Thermal Analysis and Calorimetry. 2015, vol. 120, nr 1, s. 921-928, 2 rys., 10 tab., bibliogr. 24 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1007/s10973-015-4545-9
Punktacja MNiSW z 2014: 25; 2015: 20
IF - 01.781

6. **Boerner Ewa*, Bauer Joanna, Ratajczak B*, Dereń Ewelina*, Podbielska Halina:** Application of thermovision for analysis of superficial temperature distribution changes after physiotherapy / Ewa Boerner [i in.]. Journal of Thermal Analysis and Calorimetry. 2015, vol. 120, nr 1, s. 261-267, 5 rys., 6 tab., bibliogr. 24 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1007/s10973-014-4026-6
Punktacja MNiSW z 2014: 25; 2015: 20
IF - 01.781

7. **Suchwałko Agnieszka P, Buzalewicz Igor, Podbielska Halina:** Bacteria identification in an optical system with optimized diffraction pattern registration condition supported by enhanced statistical analysis / Agnieszka Suchwałko, Igor Buzalewicz, Halina Podbielska. Optics Express. 2014, vol. 22, nr 21, s. 26312-26327, 10 rys., 4 tab., bibliogr. 17 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1364/OE.22.026312
Punktacja MNiSW z 2013: 45; 2014: 40
IF - 03.488

8. **Kowal Katarzyna, Cronin Patrick*, Dworniczek Ewa*, Zeglinski Jacek*, Tiernan Peter*, Wawrzyńska Magdalena*, Podbielska Halina, Tofail Syed A. M*:** Biocidal effect and durability of nano-TiO2 coated textiles to combat hospital acquired infections / Katarzyna Kowal [i in.]. RSC Advances. 2014, vol. 4, nr 38, s. 19945-19952, 6 rys., bibliogr. 62 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1039/C4RA02759K
Punktacja MNiSW z 2013: 30; 2014: 35
IF - 03.840

9. **Kopaczyńska Marta, Sobieszczańska Beata*, Ulatowska-Jarża Agnieszka, Hołowacz Iwona, Buzalewicz Igor, Wasyluk Łukasz T*, Tofail Syed A. M*, Biały Dariusz*, Wawrzyńska Magdalena*, Podbielska Halina:** Photoactivated titania-based nanomaterials for potential application as cardiovascular stent coatings / Marta Kopaczyńska [i in.]. Biocybernetics and Biomedical Engineering. 2014, vol. 34, nr 3, s. 189-197, 8 rys., 1 tab., bibliogr. 28 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1016/j.bbe.2014.03.005
Punktacja MNiSW z 2013: 15; 2014: 15
IF - 00.646

10. **Buzalewicz Igor, Liżewski Kamil*, Kujawińska Małgorzata*, Podbielska Halina:** Degeneration of Fraunhofer diffraction on bacterial colonies due to their light focusing properties examined in the digital holographic microscope system / Igor Buzalewicz [i in.]. Optics Express. 2013, vol. 21, nr 22, s. 26493-26505, 10 rys., 1 tab., bibliogr. 37 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1364/OE.21.026493
Punktacja MNiSW z 2012: 45; 2013: 45
IF - 03.525

11. **Suchwałko Agnieszka P, Buzalewicz Igor, Wieliczko Alina*, Podbielska Halina:** Bacteria species identification by the statistical analysis of bacterial colonies Fresnel patterns / Agnieszka Suchwalko [i in.]. Optics Express. 2013, vol. 21, nr 9, s. 11322-11337, 9 rys., 5 tab., bibliogr. 41 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1364/OE.21.011322
Punktacja MNiSW z 2012: 45; 2013: 45
IF - 03.525

12. **Dębiec-Bąk Agnieszka*, Skrzek Anna*, Podbielska Halina:** Application of thermovision for estimation of the optimal and safe parameters of the whole body cryotherapy / Agnieszka Dębiec-Bąk, Anna Skrzek, Halina

Podbielska. Journal of Thermal Analysis and Calorimetry. 2013, vol. 111, nr 3, s. 1853-1859, 10 rys., 4 tab., bibliogr. 29 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1007/s10973-012-2741-4
Punktacja MNiSW z 2012: 25; 2013: 20
IF - 02.206

13. **Buzalewicz Igor, Wieliczko Alina*, Podbielska Halina:** Influence of various growth conditions on Fresnel diffraction patterns of bacteria colonies examined in the optical system with converging spherical wave illumination / Igor Buzalewicz, Alina Wieliczko, and Halina Podbielska. Optics Express. 2011, vol. 19, nr 22, s. 21768-21785, 14 rys., bibliogr. 49 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1364/OE.19.021768
Punktacja MNiSW z 2010: 32; 2012: 45
IF - 03.587

14. **Szul-Pietrzak Elżbieta A, Hachoł Andrzej, Cieślak Krzysztof, Drożdż Ryszard, Podbielska Halina:** Modeling the influence of LASIK surgery on optical properties of the human eye / Elżbieta Szul-Pietrzak [i in.]. Journal of Modern Optics. 2011, vol. 58, nr 19/20 spec., s. 1880-1888, 9 rys., 2 tab., bibliogr. 25 poz. Tytuł nr spec.: Vision science and ophthalmic optics.
Lokalizacja elektroniczna: http://dx.doi.org/10.1080/09500340.2011.609945
Punktacja MNiSW z 2010: 27; 2012: 25
IF - 01.170

15. **Kowal Katarzyna, Wysocka-Król Katarzyna A, Kopaczyńska Marta, Dworniczek Ewa*, Franiczek Roman*, Wawrzyńska Magdalena*, Vargová Melinda*, Zahoran Miroslav*, Rakovský Erik*, Kuš Peter*, Plesch Gustav*, Plecenik Andrej*, Laffir Fathima*, Tofail Syed A. M*, Podbielska Halina:** In situ photoexcitation of silver-doped titania nanopowders for activity against bacteria and yeasts / Katarzyna Kowal [i in.]. Journal of Colloid and Interface Science. 2011, vol. 362, nr 1, s. 50-57, 6 rys., 2 tab., bibliogr. 51 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1016/j.jcis.2011.06.035
Punktacja MNiSW z 2010: 27; 2012: 30
IF - 03.070

16. **Buzalewicz Igor, Wysocka-Król Katarzyna A, Podbielska Halina:** Image processing guided analysis for estimation of bacteria colonies number by means of optical transforms / Igor Buzalewicz, Katarzyna Wysocka-Król, Halina Podbielska. Optics Express. 2010, vol. 18, nr 12, s. 12992-13005, 10 rys., 1 tab., bibliogr. 42 poz.
Lokalizacja elektroniczna: http://dx.doi.org/10.1364/OE.18.012992
Punktacja MNiSW z 2010: 32
IF - 03.753

Edited books

1. Podbielska Halina [Red.], Skrzek Anna* [Red.]: Biomedyczne zastosowania termowizji / *Biomedical applications of thermovision*. Wrocław : Oficyna Wydawnicza Politechniki Wrocławskiej, 2014.
2. Podbielska Halina [Red.], Skrzek Anna* [Red.]: Zastosowanie niskich temperatur w biomedycynie. *Low temperatures applications in biomedicine* (in Polish) Wrocław: Oficyna Wydawnicza Politechniki Wrocławskiej, 2012.
3. Podbielska Halina [Ed.], Optyka Biomedyczna. Wybrane aspekty, *Biomedical Optics. Chosen aspects*, (in Polish) Oficyna Wydawnicza Politechniki Wrocławskiej, 2011
4. Podbielska Halina [Ed.], Trziszka Tadeusz* [Red.]: Nutraceutics, biomedical remedies and physiotherapeutic methods for prevention of civilization-related diseases. (in English) eds. Halina Podbielska, Tadeusz Trziszka. Wrocław : Indygo Zahir Media, 2011.
5. Halina Podbielska, Aleksander Sieroń, Wiesław Stręk, Redakcja (Eds.), Aspects of Photodynamic Medicine II, (in English) Book Series Acta Biomedical Engineering vol. 3, wyd. Indygo zahir, Wrocław 2008
6. Halina Podbielska, Aleksander Sieroń, Wiesław Stręk, Redakcja (Eds.), Aspects of Photodynamic Medicine I, (in English) Book Series Acta Biomedical Engineering vol. 2, wyd. Kriotechnika Medyczna, Wrocław 2007
7. Halina Podbielska, Wiesław Stręk, Dariusz Biały, Redakcja (Eds.), Whole body cryotherapy, (in English) Book Series Acta Biomedical Engineering 1/1, wyd. Kriotechnika Medyczna, Wrocław 2006

8. Halina Podbielska, Aleksander Sieroń, Wiesław Stręk. Redakcja (Eds.) Diagnostyka i terapia fotodynamiczna, *Photodynamic diagnostics and therapy,* (in Polish) Wrocław: Urban & Partner, 2004
9. Optoelectronics Application in Medicine and Environemental Protection, (in English) eds. Trziszka, Nicpon, Podbielska, Müller, Rhode, Binding, ECOMED, Landsberg, (2002)

Co-auhored books

H. Podbielska, A. Ulatowska-Jarża, D, Andrzejewski, M. Lechna-Marczyńska, Sol-gel materials for biomonitoring and biomedical applications", (in English) Oficyna Wydawnicza Politechniki Wrocławskiej (2002).