

# CURRICULUM VITAE

**Jakub Dostalek, Ph.D.**

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## 1. PROFESSIONAL INTERESTS

Combined aspects of nano-photonics, materials research, and biointerfaces that are attractive for optical sensors and biosensors. Novel optical phenomena associated to surface plasmons – optical resonances with tightly confined electromagnetic field occurring on thin metallic films and nanostructures. Analytical systems enabling interaction analysis and rapid and sensitive detection of molecular and biological species, particularly relevant to medical diagnostics and food control.

## 2. KEY AREAS OF EXPERTISES

Near field optics, guided wave optics, plasmonics, optical sensors and biosensors, amplification strategies in fluorescence spectroscopy, metallic nanostructures, thin hydrogel films, polymer-metal hybrid materials, biomolecular interaction analysis.

## 3. EDUCATION

**Nov. 2006 – Oct. 2007, Postdoctoral training (Max Planck Institute for Polymer Research, Mainz, Germany).**

**Topic:** Long range surface plasmon-enhanced fluorescence with hydrogel-based biointerfaces for biosensor applications.

**Advisor:** Prof. Wolfgang Knoll

**Sept. 2000 – Oct. 2006, Doctoral studies (Charles University, Prague, Czech Republic) study program “Quantum Optics and Optoelectronics”.**

**Thesis:** High information capacity optical sensors with surface plasmons.

**Supervisor:** Prof. Jiri Homola

**Sept. 1995 – Jun. 2000, Master studies (Charles University, Prague, Czech Republic) study program “Optics and Optoelectronics”.**

**Thesis:** Analysis and characterization of an optical system of a dual channel sensor based on resonant excitation of surface plasmons.

**Supervisor:** Prof. Jiri Homola

#### **4. PROFESSIONAL EXPERIENCE**

**Nov. – Dec. 2012 – Sabbatical at Nanyang Technological (Singapore).** One and half month stay at the Center for Biomimetic Sensor Sciences (CBSS), Materials Engineering Sciences Department.

**Jan. 2009 – now, Project leader (AIT - Austrian Institute of Technology GmbH, Vienna, Austria).** Plasmonic biosensor group pursuing research in label-free biosensors, amplification in fluorescence spectroscopy and advanced tools for materials observation relying on plasmonics. Implementation of developed methods in sensors for medical diagnosis and food safety.

**Nov. 2007 – Dec. 2008, Project leader (Max Planck Institute for Polymer Research, Mainz, Germany).** Head of a group operating in the field of optical sensors and biosensors exploiting guided wave optics, surface plasmon resonance (SPR), plasmon-enhanced fluorescence (PEF), and hydrogel materials.

**Aug. 2001 – Dec. 2001, Visiting scientist (Electrical Engineering Department, University of Washington, Seattle, USA).** Carried out a prototype of miniaturized multichannel SPR sensor.

**Aug. 2000 – Dec. 2000, Visiting scientist (Electrical Engineering Department, University of Washington, Seattle, USA).** Designed a surface plasmon resonance (SPR) sensor system with improved stability and applied it for detection of toxins (Staphylococcal Enterotoxin B) in realistic samples.

**1998 – 2006, Research assistant (Institute of Radio Engineering and Electronics, Prague, Czech Republic).** Surface plasmon resonance (SPR) sensors relying on diffraction gratings, prism coupler elements and integrated optical waveguides for high capacity and portable systems. Developed high throughput sensor devices for biosensor applications in environmental monitoring (pesticides, endocrine disruptors).

**Member of technical organizing committee** of symposia including International Conference on Surface Plasmon Photonics 6 – SPP6, May 26<sup>th</sup> – May 31<sup>st</sup> 2013 in Ottawa (Canada) and International workshop Biophotonics 2011, June 8<sup>th</sup>-10<sup>th</sup> in Parma (Italy).

**Regular reviewer of papers** submitted to journals Nature Nanotechnology, Angewandte Chemie, Small, Biosensors & Bioelectronics, Analytical Chemistry, Advanced Materials, Analytical and Bioanalytical Chemistry, Analyst, Applied Surface Sciences, Sensors, Macromolecular Chemistry, Optics Express, Reactive and Functional Polymers, Journal of Physical Chemistry, ACS Applied Materials & Interfaces, Sensors and Actuators B, Acta Biomaterialia, Applied Surface Science, Colloids and Surfaces B: Biointerfaces, Materials Science and Engineering C, Journal of Electroanalytical Chemistry, Reactive and Functional Polymers.

**Reviewer of research grant proposals** for A\*STAR Grant Agency (Singapore), Czech Science Foundation (Czech Republic), Israeli Ministry of Health (Israel), and Swiss National Science Foundation (Switzerland).

## 5. ACADEMIC EXPERIENCE

**Supervision of students and scholars:** Served as a supervisor of eight doctoral students from which four already graduated at Vienna University of Natural Resources and Applied Life Sciences (Koji Toma 2009-2012, Mana Toma 2009-2012) and Mainz Gutenberg University (Chun Jen Huang 2007-2010, Yi Wang 2007-2010). Supported exchange of PhD students between his lab and network of international collaborators in Europe (Prof. Homola - Czech Republic, Prof. Sabine Szuneritz - France, and Prof. Maria Minuni - Italy) as well as in overseas (Prof. Bo Liedberg - Singapore, Dr. Benjamin Thierry - Australia, Prof. Tianxin Wei - China).

**Teaching activities:** Fachhochschule Technikum Wien (Nanotechnology course on “Optical Biosensors”, 4 hours per semester in 2012 and 2013) and University of Catania (“Optical biosensors”, 5 hours at 2013). Participating in planned joint course on NanoBiosciences & Nanomedicine at Vienna University of Technology, University of Natural Resources and Applied Life Sciences, and Danube University of Krems. Served as an opponent at doctoral defense (Antun Peic, at University of Bath, 2010).

## 6. RESEARCH GRANTS

- 2011-2014 Austrian Research Promotion Agency – FFG (Austria) project NILPlasmonics supported through the cluster NILAustria. In cooperation with Joanneum GmbH and Onkotek GmbH. Budget of JD group of 126 k€.
- 2012 Nitto Denko (Singapore), industrial project HISAUR on Hydrogel improved stability for assays in urine, budget of 160 k€.
- 2012-2015 International Graduate School (IGS), support of two students within the framework of joint program between University of Natural Resources and Applied Life Sciences (Austria) and Nanyang Technological University (Singapore), budget of 252 k€
- 2013-2016 Austrian Science Fund – FWF (Austria), ACTIPLAS - Active Plasmonics with Responsive Hydrogels, budget of 170 k€.
- 2013-2016 Austrian Science Fund – FWF (Austria), PLASMOSOL – Plasmonic Organic Solar Cell. With NanoTecCenter Weiz Forschungsgesellschaft mbH. Budget of 323 k€ (JD group 155 k€).


## 7. SCHOLARSHIPS AND AWARDS

- 2005 Attended “Meeting of Nobel Laureates” in Lindau, Germany.
- 2005 Josef Hlávka’s price for “Best students and graduated students of Prague Universities, Brno Polytechnic and young talented researchers in Academy of Sciences of the Czech Republic”.
- 2006 Max Planck Society Fellowship, Germany.





### Invited speaker at symposia:

- J. Dostalek, Plasmonic Amplification for Fluorescence Biosensors, Advances in Biodetection & Biosensors, Berlin, March 10-11<sup>th</sup> 2014.
- J. Dostalek, Plasmon-Enhanced Fluorescence: Amplification Strategy in Fluorescence Biosensors, 30 years in SPR biosensors, Singapore, November 5<sup>th</sup>-7<sup>th</sup> 2013.
- J. Dostalek, Plasmonic Biosensors Advanced by (Responsive) Functionalized Hydrogels, SoftControl, Damstadt, September 22-24<sup>th</sup> 2013.
- J. Dostalek, Y. Wang, C.J. Huang, H. Bao, Surface plasmon resonance biosensor for detection of bacterial pathogens: strategies for enhanced sensitivity, Nanoelectronic Devices for Defense & Security, New York, USA, August 29<sup>th</sup> - September 1<sup>st</sup> 2011.
- M. Toma, K. Toma, U. Jonas, A. Mateescu, J. Dostalek, Plasmonic biosensors advanced by rapidly responsive hydrogels, 6<sup>th</sup> International Symposium on Surface Sciences, Tokyo, December 11-15, 2011. Book of abstracts pp. 99.
- J. Dostalek, Y. Wang, C.J. Huang, A. Aulasevich, R. Roskamp, A. Brunsen, W. Knoll, Surface plasmon mediated fluorescence for biosensing, 4<sup>th</sup> International Symposium on Medical, Bio- and Nano-Electronics, Sendai, March 5-6, 2009, Book of abstracts pp. 21.

## 8. PUBLICATION ACTIVITIES

Papers where he is the corresponding author of are marked with a symbol .

### Book chapters

- Y. Wang, C. J. Huang, J. Dostalek, "Evanescence wave biosensors with hydrogel binding matrix" in "Handbook of Biofunctional Surfaces" edited by Wolfgang Knoll, Pan Stanford Publishing, Singapore (2012) ISBN: 9789814316637. 
- Dostálek J and Knoll W Plasmonics in „Polymer Science: A Comprehensive Reference“, Vol 2, pp. 647–659. Edited by Matyjaszewski K and Möller M , Amsterdam: Elsevier BV. (2012) ISBN: 978-0-08-087862-1. 
- J. Dostalek, C. J. Huang, W. Knoll: Chapter 1.3: Surface plasmon resonance-based biosensors, in Advanced surface design for biomaterial and life science applications, edited by A.T.A. Jenkins, R. Foersch, H. Schoenherr, Wiley-VCH, Weinheim (2009), 29-49, ISBN: 978-3-527-40789-7. 
- A. Kasry, J. Dostalek, W. Knoll: Chapter 5.4: Long range surface plasmon-enhanced fluorescence spectroscopy as a platform for biosensors, in Advanced surface design for biomaterial and life science applications, edited by A.T.A. Jenkins, R. Foersch, H. Schoenherr, Wiley-VCH, Weinheim (2009), 447-460, ISBN: 978-3-527-40789-7. 
- J. Dostálek, J. Homola: SPR Biosensors for Environmental Monitoring, in Surface Plasmon Resonance Based Sensors, editor J. Homola, Springer (2006).
- J. Dostálek, J. Ladd, S. Jiang, J. Homola: SPR Biosensors for Detection of Biological and Chemical Analytes, in Surface Plasmon Resonance Based Sensors, editor J. Homola, Springer (2006).

**Peer reviewed journal papers** (received > 1055 citations in January 2013 according to Web of Science, h-index of 16).

- M. Bauch, K. Toma, M. Toma, Q. Zhang, J. Dostalek, Surface plasmon-enhanced fluorescence biosensors: a review, *Plasmonics*, in press.
- C.J. Huang, W. Knoll, A. Sessitsch, J. Dostalek, SPR bacterial pathogen biosensor: the importance of fluidic conditions and probing depth, *Talanta*, in revision.
- M. Bauch, J. Dostalek, Collective localized surface plasmons for high performance fluorescence biosensing, *Optics Express*, (2013), 21(17) pp 20470-20483.
- R. Mejjard, C.J. Huang, J. Dostalek, H. Griesser, B. Thierry, Tunable and robust long range surface plasmon resonance for biosensor applications, *Optics Materials*, (2013), 35(12) pp 2507-2513.
- M. Toma, U. Jonas, A. Mateescu, W. Knoll, J. Dostalek, Active control of SPR by responsive hydrogels: towards active plasmonics for biosensor applications, *Journal of Physical Chemistry C*, (2013), 117(22), 11705.
- M.M. Picher, S. Küpcü, C.-J. Huang, J. Dostalek, D. Pum, U. B. Sleytr, P. Ertl, Nanobiotechnology advanced antifouling surfaces for the continuous electrochemical monitoring of glucose in whole blood using a lab-on-a-chip, *Lab Chip*, (2013), 13, 1780.
- K. Toma, P. Adam, M. Vala, J. Homola, W. Knoll, J. Dostalek, Compact Biochip for Surface Plasmon-Enhanced Fluorescence Assays, *Optics Express*, (2013) 21(8), 10121-10132.
- K. Toma, E. Descrovi, M. Toma, M. Ballarini, P. Mandracci, F. Giorgis, A. Mateescu, U. Jonas, W. Knoll, J. Dostalek, Bloch surface wave-enhanced fluorescence biosensor, *Biosensors and Bioelectronics*, (2013) , 43, 108-114.
- Q. Zhang, Y. Wang, A., Mateescu, U. Jonas, T. Wei, J. Dostalek, Biosensor Based on Hydrogel Optical Waveguide Spectroscopy for the Detection of 17 $\beta$ -Estradiol, *Talanta*, (2013), 104, 149-154.
- M. Toma, K. Toma, P. Adam, J. Homola, W. Knoll, J. Dostalek, Surface plasmon-coupled emission on plasmonic Bragg gratings, *Optics Express* (2012), 20(13), 14042.
- M. Toma, W. Knoll, J. Dostalek, Bragg-scattered surface plasmon microscopy, *Plasmonics* (2012) 7(2), 293-299.
- A. Mateescu, Y. Wang, J. Dostalek, U. Jonas, Thin Hydrogel Films for Optical Biosensor Applications, *Membranes* (2012), 2(1), 40-69.
- Y. Wang, J. Dostalek, W. Knoll, Magnetic Nanoparticle-Enhanced Biosensor Based On Grating-Coupled Surface Plasmon Resonance, *Analytical Chemistry* (2011), 83, 6202–6207.
- K. Toma, J. Dostalek, W. Knoll, Long range surface plasmon-coupled fluorescence emission for biosensor applications, *Optics Express* (2011), Vol. 19, Iss. 12, pp. 11084–11089.
- C.J. Huang, J. Dostalek, A. Sessitsch, W. Knoll, Long range surface plasmon-enhanced fluorescence spectroscopy biosensor for ultrasensitive detection of *E. Coli* O157:H7, *Analytical Chemistry* (2011), 83 (3), pp 674–677.
- C.J. Huang, J. Dostalek, W. Knoll, Long range surface plasmon and hydrogel waveguide field-enhanced fluorescence biosensor with 3D binding matrix: on the role of mass transport, *Biosensors and Bioelectronics* (2010), 26,4, 1425-1431.

- E-K. Sinner, S. Ritz, Y. Wang, J. Dostalek, U. Jonas, W. Knoll, Molecularly Controlled Functional Architectures at Biointerfaces, *Materials Today* (2010), 23, 4, 47-55.
- Y. Wang, C.J. Huang, U. Jonas, T. Wei, J. Dostalek, W. Knoll, Biosensor based on Hydrogel Optical Waveguide Spectroscopy, *Biosensors and Bioelectronics* (2010), 25, 1663-1668.
- C.J. Huang, J. Dostalek, W. Knoll, Optimization of layer structure supporting long range surface plasmons for surface plasmon-enhanced fluorescence spectroscopy biosensors, *Journal of Vacuum Society and Technology B* (2010), 28, 1, 66-72.
- Y. Wang, Annette Brunsen, U. Jonas, J. Dostalek, W. Knoll, Prostate Specific Antigen Biosensor Based on Long Range Surface Plasmon-Enhanced Fluorescence Spectroscopy and Dextran Hydrogel Binding Matrix, *Analytical Chemistry* (2009) 81, 23, 9625-9632.
- A. Aulasevich, R.F. Roskamp, U. Jonas, B. Menges, J. Dostalek, W. Knoll, Optical waveguide spectroscopy for the investigation of protein-functionalized hydrogel films, *Macromolecular Rapid Communications* (2009), 30, 872-877.
- Y. Wang, J. Dostalek, W. Knoll, Long range surface plasmon-enhanced fluorescence spectroscopy for the detection of aflatoxin M1 in milk, *Biosensors and Bioelectronics* (2009), 24, 2264-2267.
- J. Dostalek, R. F. Roskamp, W. Knoll, Coupled long range surface plasmons for the investigation of thin films and interfaces, *Sensors and Actuators B* (2009), 139, 9-12.
- J. Dostalek, W. Knoll, Biosensors based on surface plasmon-enhanced fluorescence spectroscopy, *Biointerphases* (2008), Vol. 3, No.3, 12-22.
- W. Knoll, A. Kasry, F. Yu, Y. Wang, A. Brunsen, J. Dostalek, New concepts with surface plasmons and nano-biointerfaces, *Journal of Nonlinear Optical Physics & Materials* (2008), Vol. 17, No. 2, pp 121-129.
- J. Dostalek, J. Homola, Surface plasmon resonance sensor based on an array of diffraction gratings for highly-parallelized observation of biomolecular interactions, *Sensors and Actuators B* (2008), 129/1, 303-310.
- J. Dostalek, A. Kasry, W. Knoll, Long range surface plasmons for observation of biomolecular binding events at metallic surfaces, *Plasmonics* (2007) 2, 97-106.
- J. Dostálek, P. Adam, P. Kvasnička, O. Telezhnikova, J. Homola, Spectroscopy of bragg-scattered surface plasmons for characterization of thin biomolecular films, *Optics Letters* (2007), 32, 2903-2905.
- J. Dostálek, J. Příbyl, P. Skládal, J. Homola, Multichannel SPR biosensor for detection of endocrine disrupting compounds, *Analytical and Bioanalytical Chemistry* (2007) 389:1841-1847.
- P. Adam, J. Dostálek, J. Homola, Multiple surface plasmon spectroscopy for study of biomolecular systems, *Sensors and Actuators B* (2006), 113, 771-781.
- J. Homola, H. Vaisocherová, J. Dostálek, M. Piliarik, Multianalyte surface plasmon resonance biosensing, *Methods* (2005), 37, 26-36.
- J. Dostálek, H. Vaisocherová, J. Homola, Multichannel Surface Plasmon Resonance Biosensor with Wavelength Division Multiplexing, *Sensors and Actuators B* (2005), 108, 758-764.
- J. Dostálek, J. Homola, M. Miler, Rich information format surface plasmon resonance biosensor based on an array of diffraction gratings, *Sensors and actuators B* (2005), 107, 154-161.

- J. Ryšavá, J. E. Dyr, J. Homola, J. Dostálek, P. Křížová, L. Mášová, J. Suttnar, J. Briestenský, I. Santar, K. Myška, M. Pecka, Surface interactions of oxidized cellulose with fibrin(ogen) and blood platelets, *Sensors and Actuators B* (2003), 90, 243-249.
- J. Homola, J. Dostálek, S. Chen, A. Rasooly, S. Jiang, S. S. Yee, Spectral Surface Plasmon Resonance Biosensor for Detection of Staphylococcal Enterotoxin B (SEB) in Milk, *Journal of Microbiology* (2002), 75, 61-69.
- J. Homola, H. B. Lu, G. G. Nenninger, J. Dostálek, S. S. Yee, A novel multichannel surface plasmon resonance biosensor, *Sensors and Actuators B* (2001), 76, 403-410.
- V. Koubová, E. Brynda, L. Karasová, J. Škvor, J. Homola, J. Dostálek, P. Tobiška, J. Rošický, Detection of foodborne pathogens using surface plasmon resonance biosensors, *Sensors and Actuators B* (2001), 74, 100-105.
- J. Dostálek, J. Čtyroký, J. Homola, E. Brynda, M. Skalský, P. Nekvindová, J. Špírková, J. Škvor, J. Schröfel, Surface plasmon resonance biosensors based on integrated optical waveguides, *Sensors and Actuators B* (2001), 76, 8-12.

### Patents

- K. Toma, J. Dostalek, W. Knoll, J. Homola, M. Vala, P. Adam, Compact Biochip for Plasmon-Enhanced Fluorescence Biosensor, submitted to European Patent Office, EP12168046.
- J. Čtyroký, J. Dostálek, J. Homola: Means for Multichannel Detection in Optical Sensors with Surface Plasmons, registered at Czech Patent and Trademark Office, CZ291728.
- O. Telezhnikova, J. Dostálek, J. Homola: Method For Spectroscopy Of Surface Plasmons In Surface Plasmon Resonance Sensors And An Element For The Use Of Thereof, CZ299489, US20080144027, CA2598118, CN101175989.

### Conference papers

- N. Sharma, C. Petri, U. Jonas, M. Bach, G. Tovar, K. Mrkvova, M. Vala, J. Homola, W. Knoll, J. Dostalek, Molecular Imprinted Polymer Optical Waveguides for Direct Detection of Small Molecules, 30 years in SPR biosensors, Singapore, November 5th-7th 2013.
- K. Sergelen, C. Petri, U. Jonas, W. Knoll, S. Ohlson, B. Liedberg, J. Dostalek, SPR Biosensor for Continuous Monitoring of Small Molecules, 30 years in SPR biosensors, Singapore, November 5th-7th 2013.
- U. Sauer, A. Solar, M. Bauch, J. Dostalek, C. Preininger, Fabrication of gold-nanostructures for biosensor surfaces via residue-free UV-NIL and subsequent lift-off, MNE2013, London 16th-19th September 2013
- M. Bauch, W. Knoll, and J. Dostalek, Plasmon-Enhanced Fluorescence Biosensor with Collective Localized Surface Plasmons, SPP6, Ottawa May 26<sup>th</sup>-May 31<sup>st</sup> 2013
- U. Jonas, V. Schwartz, A. Mateescu, J. Dostalek, Y. Wang, Q. Zhang, Complex Hydrogel Thin Films as Smart Matrix for Biosensor Applications, *Frontiers in Polymer Science*, Sitges 21st-23rd May 2013.

- U. Jonas, V. Schwartz, A. Mateescu, J. Dostalek, Y. Wang, Q. Zhang, A. Brunsen, Complex Hydrogel Thin Films as Smart Matrix for Biosensor Applications, COMPLOIDS, May 14th – 18th, 2013 Ljubljana.
- M. Bauch, K. Toma, J. Dostalek, Plasmon-enhanced fluorescence biosensors: amplification strategy in fluorescence assays, Nano and Photonics, Maunternndorf, 18th-22nd March 2013.
- M. Bauch, W. Knoll, J. Dostalek, Lattice plasmon modes for plasmon-enhanced fluorescence, NFO12, San Sebastian, 3rd-7th September 2012, book of abstracts p. 63
- J. Dostalek, Y. Wang, C.J. Huang, K. Toma, M. Toma, W. Knoll, Plasmon-enhanced fluorescence for biosensor applications, NFO12, San Sebastian, 3rd-7th September 2012, book of abstracts p.154
- Y. Wang, C.J. Huang, A. Kibrom, A. Mateescu, U. Jonas, W. Knoll, J. Dostalek, Plasmon-Enhanced Fluorescence Biosensors with Hydrogel Binding Matrix, Gordon Research Conference, Les Diableretes, May 21<sup>st</sup>-25<sup>th</sup> May 2012.
- M. Toma, Q. Zhang, U. Jonas, W. Knoll, J. Dostalek, Hydrogel Optical Waveguide Spectroscopy for Label-free Detection of Small Molecules, Gordon Research Conference, Les Diableretes, May 21<sup>st</sup>-25<sup>th</sup> May 2012.
- K. Toma, M. Vala, P. Adam, J. Homola, W. Knoll, J. Dostalek, Compact Biochip of Plasmon-Enhanced Fluorescence Assays, Gordon Research Conference, Les Diableretes, May 21<sup>st</sup>-25<sup>th</sup> May 2012.
- K. Toma, M. Vala, P. Adam, J. Homola, W. Knoll, J. Dostalek, Plasmon-enhanced fluorescence for portable biosensor devices, Europtrode, April 1<sup>st</sup>-4<sup>th</sup> 2012, Barcelona, book of abstracts p 82.
- M. Toma, A. Mateescu, U. Jonas, W. Knoll, J. Dostalek, Plasmon-enhanced fluorescence biosensor with active responsive hydrogel binding matrix, Europtrode, April 1<sup>st</sup>-4<sup>th</sup> 2012, Barcelona, book of abstracts p 134.
- J. Dostalek, Plasmon-enhanced fluorescence biosensors exploiting metallic nanostructures, BioNanoMed, Krems, 1<sup>st</sup>-2<sup>nd</sup> March 2012, book of abstracts.
- J. Dostalek, Optical affinity biosensors utilizing surface plasmon-enhanced fluorescence spectroscopy, Exploratory Workshop: Emerging Analytical Tools to Quantify the Plant-Insect-Environment Interaction. New Science for the Next Generation Integrated Bio/Sensors and Probes, Bukuresti, November 16<sup>th</sup>-18<sup>th</sup>, book of abstracts 5-6.
- Y. Wang, W. Knoll, J. Dostalek, Long range surface plasmon resonance bacterial pathogen biosensor with magnetic nanoparticle assay, Biophotonics 2011, 8-10 June 2011, Italy, page 1-3.
- M. Toma, A. Mateescu, U. Jonas, J. Dostalek, W. Knoll, Plasmonic biosensor schemes with thermo-responsive hydrogel binding matrix, Biophotonics 2011, 8-10 June 2011, Italy, page.
- K. Toma, Long range surface plasmon-coupled fluorescence emission for biosensor applications, Biophotonics 2011, 8-10 June 2011, Italy.
- K. Toma, Long range surface plasmon-coupled fluorescence emission for biosensor applications, SPP5 2011, 15-20 May 2011, Korea
- Y. Wang, J. Dostalek, W. Knoll, Magnetic nanoparticle-enhanced SPR biosensor, Proc. Eurosensors XXIV, September 5-8, 2010, Linz, Austria
- Y. Wang, J. Dostalek, W. Knoll, Grating-coupled SPR for magnetic nanoparticle immunoassay, ACS, August 22-26, 2010, Boston, USA.



- J. Dostalek, Y. Wang, C.J. Huang, K. Toma, W. Knoll, Surface plasmon-enhanced fluorescence for ultra sensitive biosensors, Biosensors 2010, May 26-28, Glasgow, UK, Book of abstracts 11B.2.
- K. Toma, J. Dostalek, W. Knoll, Surface plasmon-mediated fluorescence spectroscopy for ultra sensitive biosensors, Europtrode X, March 28-31, 2010, Prague, CZ, Book of abstracts P152.
- C.J. Huang, U. Jonas, J. Dostalek, W. Knoll, Hydrogel binding matrix for surface plasmon- and optical waveguide-enhanced fluorescence spectroscopy biosensor, Europtrode X, 28-31 March 2010, Prague, CZ, Book of abstracts P158.
- M. Toma, J. Dostalek, W. Knoll, Bragg-scattered surface plasmons for high resolution SPR imaging, Europtrode X, 28-31 March 2010, Prague, CZ, Book of abstracts P88.
- C.J. Huang, J. Dostalek, W. Knoll, Surface plasmon-enhanced fluorescence spectroscopy for detection of bacterial pathogens, First Bio-Sensing Technology Conference, 10-12 November 2009, Bristol, UK, Delegate manual P2.1.13.
- J. Dostalek, W. Knoll, Surface plasmon Enhanced Fluorescence in Biosensing, 11<sup>th</sup> International Conference on Methods and Applications of Fluorescence: Spectroscopy, Imaging and Probes, Budapest, Hungary, September 2009.
- J. Dostalek, Y. Wang, C.J. Huang, R. Chulia-Jordan, A. Aulasevich, R. Roskamp, A. Brunsen, W. Knoll, Advanced biosensing based on surface plasmon-enhanced fluorescence spectroscopy, Optics and Optoelectronics 2009, Prague, Czech Republic, April 20-23, 2009, Book of abstracts 7356.
- C.J. Huang, U. Jonas, J. Dostalek, W. Knoll; "Biosensor platform based on surface plasmon-enhanced fluorescence spectroscopy and responsive hydrogel binding matrix", Proc. SPIE 2009, Vol. 7356, 735625, DOI: 10.1117/12.820988.
- C.J. Huang, J. Dostalek, W. Knoll, Long range surface plasmons for fluorescence spectroscopy-based biosensing, Optics and Optoelectronics 2009, Prague, Czech Republic, April 20-23, 2009, Book of abstracts 7356-82.
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- J. Dostalek, Y. Wang, C.J. Huang, R. Chulia-Jordan, A. Aulasevich, R. Roskamp, A. Brunsen, W. Knoll, Advanced biosensing based on surface plasmon-enhanced fluorescence spectroscopy, Nanosens, Vienna, September 29-30th 2008, Book of abstracts.
- J. Dostalek, Y. Wang, A. Brunsen, R. Roskamp, W. Knoll, Biosensor based on long range surface plasmon-enhanced fluorescence spectroscopy, Europtrode IX, Dublin, March 30th 2008, Book of abstracts pp. 66.
- J. Homola, M. Vala, P. Adam, J. Dostalek, O. Telezhnikova, M. Pilarik, Advances in surface plasmon resonance (SPR) biosensing, The Tenth World Congress on Biosensors (Biosensors 2008), Shanghai, China, May 14-16, 2008, Delegate Manual P2.177.
- Q.Li, J. Dostalek, J.J. Wang, S. Ahl, U. Jonas, W. Knoll, Silica and gold composite inverse opal and its biosensing application, The Tenth World Congress on Biosensors (Biosensors 2008), Shanghai, China, May 14-16, 2008, Delegate Manual P2.60
- P. Adam, J. Dostálek, O. Telezhnikova, J. Homola: SPR Sensor Based on a Bi-diffractive Grating, Optics and Optoelectronics 2007, Prague, Czech Republic, April 16-20, 2007, SPIE proceedings, Vol. 6585, U528-536.

- M. Vala, J. Dostálek, J. Homola: Diffraction Grating-Coupled Surface Plasmon Resonance Sensor Based on Spectroscopy of Long-Range and Short-Range Surface Plasmons, Optics and Optoelectronics 2007, Prague, Czech Republic, April 16-20, 2007. SPIE proceedings, Vol. 6585, U547-555.
- M. Vala, J. Dostálek, J. Homola, Long-range surface plasmon resonance biosensor based on diffraction gratings, Biosensors, Toronto, May 10-12, 2006.
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