

# Curriculum Vitae: Jacek Fiutowski

Head of Nanophotonics group, NanoSYD, MCI

## Personal details

- Born: 1981 in Poland
- Affiliation: NanoSYD, Mads Clausen Institute, University of Southern Denmark, Alsion 2, 6400 Sønderborg, Denmark
- Position: Associate Professor
- Phone: +45 65 50 16 78
- E-mail: fiutowski@mci.sdu.dk
- ORCID iD: 0000-0001-7210-232X

## Education

- 2005 - M.Sc. (physics) from the Jagiellonian University Cracow, Poland
- 2009 - Ph.D. from the Jagiellonian University Cracow, Poland, incl. research stays at University of Southern Denmark, Odense

## Employment

- 2015 - today: Associate Professor, group leader (Nanophotonics group) at NanoSYD
- 2012 – 2015: Assistant professor at NanoSYD, Mads Clausen Institute, University of Southern Denmark
- 2015 : Visiting Professor, Department of Physics, University of Cagliari, Italy.
- 2010 – 2012: Postdoc at NanoSYD, Mads Clausen Institute, University of Southern Denmark
- 2009 – 2010: Postdoc at Smoluchowski Institute of Physics, Jagiellonian University Cracow, Poland

## Scientific focus area

- Laser scanning microscopy and ultrafast luminescence dynamics
- Micro- and nano-fabrication of Nanophotonic systems
- Plasmonics and Organic Plasmonic Hybrids
- High Resolution Scanning Microscopy

## Awards

BHJ Young Researcher Award, 2018

## Publications

### Million Microfiber Releases: Comparing Washable and Disposable Face Masks

Huang, Y., Laghrissi, A., Fiutowski, J., Hedegaard, M. A. B., Duan, X., Wang, X., Helal, M., Rubahn, H.-G., Holbech, H., Hardiman, G., Xu, X. & Xu, E. G., 10. Sept 2024, (E-pub ahead of print) In: Environmental Science & Technology.

### Adaptation of a methanogen to the constructed environment

Kawaichi, S., Kotoky, R., Fiutowski, J. & Rotaru, A.-E., 6. Mar 2024, 15 p. bioRxiv.

### Interaction of chitosan with nanoplastic in water: the effect of environmental conditions, particle properties, and potential for in situ remediation

Djajadi, D. T., Müller, S., Fiutowski, J., Rubahn, H.-G., Thygesen, L. G. & Posth, N., 10. Jan 2024, In: Science of the Total Environment. 907, 13 p., 167918.

### Rapid template-assisted self-assembly: a practical route to the fast assembly of colloidal particles

Laghrissi, A., Gupta, P., Rubahn, H.-G. & Fiutowski, J., Jun 2023, In: Journal of Nanoparticle Research. 25, 6, 10 p., 103.

### Helium Ion Microscopy and Sectioning of Spider Silk

Iachina, I., Brewer, J., Rubahn, H.-G. & Fiutowski, J., 22. May 2023, In: Scanning. 2023, 2936788.

### Nanoscale imaging of major and minor ampullate silk from the orb-web spider *Nephila Madagascariensis*

Iachina, I., Fiutowski, J., Rubahn, H.-G., Vollrath, F. & Brewer, J., Apr 2023, In: Scientific Reports. 13, 1, 10 p., 6695.

### **Effect of Focused Helium-ion Beam on polypropylene-based thin film capacitor**

Neupane, S., Chiriaev, S., Greenbank, W., Laghrissi, A., Gkionis-Konstantatos, O., Fiutowski, J., Leissner, T., Ebel, T. & Tavares, L., 2023.

### **Para-hexaphenylene (p-6P) nanofibers grown on a silver surface for polarization-insensitive surface plasmon polariton excitation**

Sobolewska, E. K., Laghrissi, A., Kawalec, T., Jozefowski, L., Rubahn, H. G., Adam, J. & Fiutowski, J., 15. May 2022, In: *Optics Communications*. 511, 5 p., 127995.

### **Selective adsorption and photocatalytic clean-up of oil by TiO<sub>2</sub> thin film decorated with p-V<sub>3</sub>D<sub>3</sub> modified flowerlike Ag nanoplates**

Shondo, J., Veziroglu, S., Tjardts, T., Fiutowski, J., Schröder, S., Mishra, Y. K., Strunskus, T., Rubahn, H. G., Faupel, F. & Aktas, O. C., 13. May 2022, In: *Advanced Materials Interfaces*. 9, 14, 9 p., 2102126.

### **Layer-by-layer Printed Dielectrics: Scalable Nanocomposite Capacitor Fabrication for the Green Transition**

Greenbank, W., Ebel, T., Fiutowski, J. & Gupta, P., 2022, *PCIM Europe 2022: International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management Proceedings*. VDE-Verlag, p. 368-374 52

### **Focused Ion Beam Graphene Patterning and Nanoparticle Deposition for Plasmonic Applications**

Novikov, S., Fiutowski, J., Doroshina, N. V., Arsenin, A. V., Volkov, V. & Popok, V. N., 23. Aug 2021, *Proceedings of XXV International Conference Ion-Surface Interaction: Ion-Surface Interactions ISI-2021*. Zykova, E. Y., Karaseov, P. A., Titov, A. I. & Yurasova, V. E. (eds.). Vol. 2. p. 201-204

### **A nanoscopic journey through spider silk**

Iachina, I., Fiutowski, J., Oh, Y. J., Chiriaev, S., Rubahn, H.-G., Vollrath, F. & Brewer, J. R., 5. Aug 2021.

### **CheckNano: Nanoparticle detection and sizing**

Fiutowski, J., Gupta, P., Laghrissi, A., Adam, J., Rubahn, H.-G., Beermann, J., Yezekyan, T., Rehmann, H. & Labes, A., 5. Aug 2021.

### **Rapid Template-Assisted Self-Assembly: A Practical Route to the Fast Assembly of Colloids**

Laghrissi, A., Gupta, P., Rubahn, H.-G. & Fiutowski, J., 5. Aug 2021.

### **Micro-spectroscopy of buried short-range surface plasmon polaritons supported by thin polycrystalline gold films**

Großmann, M., Black, M., Jaruschewski, J., Klick, A., Leißner, T., Fiutowski, J., Rubahn, H. G. & Bauer, M., Jun 2021, In: *Plasmonics*. 16, 3, p. 737-746

### **Marine algae incorporated polylactide acid patch: novel candidate for targeting osteosarcoma cells without impairing the osteoblastic proliferation**

Fiutowski, J., Mishra, Y. K., Veziroglu, S., Ayna, M., Kohlhaas, T., Sayin, S., Karayürek, F., Naujokat, H., Saygili, E. İ., Açı, Y., Wiltfang, J., Faupel, F., Aktas, O. C. & Gülses, A., 10. Mar 2021, In: *Polymers*. 13, 6, 12 p., 847.

### **Functionalized surfaces as a tool for virus sensing: a demonstration of human mastadenovirus detection in environmental waters**

Schons Gularte, J., de Oliveira Hansen, R., Demoliner, M., Fiutowski, J., Eisen, A., Heldt, F., Almeida, P., Rubahn, H.-G. & Spilki, F., Feb 2021, In: *Chemosensors*. 9, 2, 17 p., 19.

### **Bias-Dependent Dynamics of Degradation and Recovery in Perovskite Solar Cells**

Prete, M., Khenkin, M. V., Glowienka, D., Patil, B. R., Lissau, J. S., Dogan, I., Hansen, J. L., Leißner, T., Fiutowski, J., Rubahn, H. G., Julsgaard, B., Balling, P., Turkovic, V., Galagan, Y., Katz, E. A. & Madsen, M., 2021, In: *ACS Applied Energy Materials*. 4, 7, p. 6562-6573

**Efficient Coupling of Single Organic Molecules to Channel Plasmon Polaritons Supported by V-Grooves in Monocrystalline Gold**

Kumar, S., Leißner, T., Boroviks, S., Andersen, S. K. H., Fiutowski, J., Rubahn, H.-G., Mortensen, N. A. & Bozhevolnyi, S. I., 19. Aug 2020, In: ACS Photonics. 7, 8, p. 2211-2218

**Solar light assisted degradation of dyes and adsorption of heavy metal ions from water by CuO-ZnO tetrapodal hybrid nanocomposite**

Sharma, M., Poddar, M., Gupta, Y., Nigam, S., Avasthi, D. K., Adelong, R., Abolhassani, R., Fiutowski, J., Joshi, M. & Mishra, Y. K., 1. Jul 2020, In: Materials Today Chemistry. 17, 13 p., 100336.

**Photo-induced and electrical degradation of organic field-effect transistors**

Cielecki, P. P., Leissner, T., Ahmadpour, M., Madsen, M., Rubahn, H.-G., Fiutowski, J. & Kjelstrup-Hansen, J., Jul 2020, In: Organic Electronics. 82, 7 p., 105717.

**Acoustic attenuation spectroscopy and helium ion microscopy study of rehydration of dairy powder**

Glover, Z., Francis, M. J., Fiutowski, J., Sun, Q., Yu, Q., Andersen, U., Brewer, J. R., Simonsen, A. C., Povey, M. J. & Holmes, M. J., 6. May 2020, In: Colloids and Surfaces A: Physicochemical and Engineering Aspects. 600, 10 p., 124795.

**Plasmonic properties of nanostructured graphene with silver nanoparticles**

Novikov, S. M., Popok, V. N., Fiutowski, J., Arsenin, A. V. & Volkov, V. S., 23. Apr 2020, In: Journal of Physics: Conference Series. 1461, p. 4 012119.

**Photo-deposition of Au Nanoclusters for Enhanced Photocatalytic Dye Degradation over TiO<sub>2</sub> Thin Film**

Veziroglu, S., Obermann, A.-L., Ullrich, M., Hussain, M., Kamp, M., Kienle, L., Leißner, T., Rubahn, H.-G., Polonskyi, O., Strunskus, T., Fiutowski, J., Es-Souni, M., Adam, J., Faupel, F. & Aktas, O. C., 1. Apr 2020, In: ACS Applied Materials & Interfaces. 12, 13, p. 14983-14992

**Meat and fish freshness evaluation by functionalized cantilever-based biosensors**

Costa, C. A. B., Grazhdan, D., Fiutowski, J., Nebling, E., Blohm, L., Lofink, F., Rubahn, H. G. & de Oliveira Hansen, R., 1. Mar 2020, In: Microsystem Technologies. 26, 3, p. 867-871

**Tailoring of Silver Nanoparticle Size Distributions in Hydrogenated Amorphous Diamond-like Carbon Nanocomposite Thin Films by Direct Femtosecond Laser Interference Patterning**

Jurkevičiūtė, A., Klimaitė, G., Tamulevičius, T., Fiutowski, J., Rubahn, H.-G. & Tamulevičius, S., Mar 2020, In: Advanced Engineering Materials. 22, 3, 1900951.

**Formation of Si nanorods and discrete nanophases by axial diffusion of Si from substrate into Au and AuPt nanoalloy nanorods**

Berger, N., Laghrissi, A., Yan Tay, Y., Sritharan, T., Fiutowski, J., Rubahn, H.-G. & Es-Souni, M., 2020, In: Nanomaterials. 10, 1, 14 p., 68.

**Tailoring optical discs for surface plasmon polaritons generation**

Sierant, A., Panas, R., Fiutowski, J., Rubahn, H.-G. & Kawalec, T., 2020, In: Nanotechnology. 31, 2, 9 p., 025303.

**PTFEP-Al<sub>2</sub>O<sub>3</sub> hybrid nanowires reducing thrombosis and biofouling**

Haidar, A., Ali, A. A., Veziroglu, S., Fiutowski, J., Eichler, H., Müller, I., Kiefer, K., Faupel, F., Bischoff, M., Veith, M., Aktas, O. C. & Abdul-Khalig, H., 19. Oct 2019, In: Nanoscale Advances. 1, 12, p. 4659-4664

**Comparison of immunomagnetic separation and ultracentrifugation as concentration methods for human mastadenovirus in water samples**

Schons Gularte, J., Oliveira Hansen, R. M. D., Demoliner, M., Fiutowski, J., Eisen, A. K., Rubahn, H.-G. & Spilki, F. R., 16. Oct 2019.

**High precision sensor technology for shelf life prediction and reduction of meat and fish waste**

Nsubuga, L., Fiutowski, J., Lofink, F., Hvam, J. & Oliveira Hansen, R. M. D., Oct 2019.

### **Three focused ion beam nanofabrication of plasmonic devices**

Leissner, T., Kumar, S., Thomaschewski, M., Adam, J., Chiriaev, S., Fiutowski, J., Bozhevolnyi, S. I. & Rubahn, H.-G., 17. Sept 2019.

### **Plasmonic metasurface Luneburg lens**

Garcia-Ortiz, C. E., Cortes, R., Gomez-Correa, J. E., Pisano, E., Fiutowski, J., Garcia-Ortiz, D. A., Ruiz-Cortes, V., Rubahn, H.-G. & V. Coello, V., 4. Sept 2019, In: Photonics Research. 7, 10, p. 1112-1118

### **Imaging on the Helium Ion Microscope: from spider silk to photocatalytic nanocomposite**

Fiutowski, J., Leissner, T., Iachina, I., Brewer, J. R., Chiriaev, S. & Rubahn, H.-G., 5. Jul 2019.

### **Three-ion-beam nanofabrication of plasmonic devices**

Leissner, T., Chiriaev, S., Fiutowski, J. & Rubahn, H.-G., 4. Jul 2019.

### **Helium Ion Microscopy: from Spider Silk to Nanoplasmonic Structures**

Fiutowski, J., Leissner, T., Iachina, I., Brewer, J. R., Chiriaev, S. & Rubahn, H.-G., 8. Jun 2019.

### **Plasmonic Luneburg lens characterization with phase estimation**

García Ortíz, C. E., Cortes, R., Gómez-Correa, J. E., Pisano, E., Fiutowski, J., Garcia-Ortiz, D. A., Ruiz-Cortes, V., Rubahn, H.-G. & Coello, V., 30. May 2019.

### **Femtosecond time-resolved photoemission electron microscopy operated at sample illumination from the rear side**

Klick, A., Großmann, M., Beewen, M., Bittorf, P., Fiutowski, J., Leißner, T., Rubahn, H.-G., Reinhardt, C., Elmers, H.-J. & Bauer, M., 16. May 2019, In: Review of Scientific Instruments. 90, 5, 7 p., 053704.

### **Cauliflower-like CeO<sub>2</sub>:TiO<sub>2</sub> Hybrid Nanostructures with Extreme Photocatalytic and Self-Cleaning Properties**

Veziroglu, S., Röder, K., Gronenberg, O., Vahl, A., Polonsky, O., Strunskus, T., Rubahn, H.-G., Kienle, L., Adam, J., Fiutowski, J., Faupel, F. & Aktas, O. C., 2019, In: Nanoscale. 11, 20, p. 9840-9844 6 p.

### **Para-hexaphenylene (p-6P) nanofibers for polarization-insensitive surface plasmon polariton excitation**

Sobolewska, E. K., Kawalec, T., Rubahn, H.-G., Adam, J. & Fiutowski, J., 2019.

### **Photo-induced Degradation Mechanisms in 4P-NPD Thin Films**

Cielecki, P. P., Adam, J., Leissner, T., Patil, B. R., Madsen, M., Rubahn, H.-G., Kjelstrup-Hansen, J. & Fiutowski, J., Dec 2018, In: Organic Electronics. 63, p. 114-119

### **Mapping the transition to superwetting state for nanotextured surfaces templated from block-copolymer self-assembly**

Telecka, A., Mandsberg, N. K., Li, T., Ndoni, S., Di Mundo, R., Palumbo, F., Fiutowski, J., Chiriaev, S. & Taboryski, R., 28. Nov 2018, In: Nanoscale. 10, 44, p. 20652-20663

### **Surface Plasmon Polaritons Probed with Cold Atoms**

Kawalec, T., Sierant, A., Panas, R., Fiutowski, J., Bartoszek-Bober, D., Jozefowski, L. & Rubahn, H.-G., 1. Apr 2018, In: Plasmonics. 13, 2, p. 639-644

### **Highly stable silver nanoparticles for SERS applications**

Novikov, S. M., Popok, V. N., Evlyukhin, A. B., Hanif, M., Morgen, P., Fiutowski, J., Beermann, J., Rubahn, H. G. & Bozhevolnyi, S. I., 1. Jan 2018, In: Journal of Physics: Conference Series. 1092, p. 1-6 012098.

### **Micro-cantilevers for optical sensing of biogenic amines**

Wang, Y., Bravo Costa, C. A., Sobolewska, E. K., Fiutowski, J., Brehm, R., Albers, J., Nebling, E., Lofink, F., Wagner, B., Benecke, W., Rubahn, H.-G. & Oliveira Hansen, R. M. D., 1. Jan 2018, In: Microsystem Technologies. 24, 1, p. 363-369

**Hierarchical Structures: Photocatalytic Growth of Hierarchical Au Needle Clusters on Highly Active TiO<sub>2</sub> Thin Film (Adv. Mater. Interfaces 15/2018)**

Veziroglu, S., Ghorl, M. Z., Kamp, M., Kienle, L., Rubahn, H.-G., Strunskus, T., Fiutowski, J., Adam, J., Faupel, F. & Aktas, O. C., 2018, In: Advanced Materials Interfaces. 5, 15, 1870074.

**Photocatalytic growth of hierarchical au needle clusters on highly active TiO<sub>2</sub> thin film**

Veziroglu, S., Ghorl, M. Z., Kamp, M., Kienle, L., Rubahn, H.-G., Strunskus, T., Fiutowski, J., Adam, J., Faupel, F. & Aktas, O. C., 2018, In: Advanced Materials Interfaces. 5, 15, 7 p., 1800465.

**Single-mode to multi-mode crossover in thin-load polymethyl methacrylate plasmonic waveguides**

Großmann, M., Thomaschewski, M., Klick, A., Goszczak, A. J., Sobolewska, E. K., Leißner, T., Adam, J., Fiutowski, J., Rubahn, H.-G. & Bauer, M., 2018, In: Plasmonics. 13, 4, p. 1441-1448

**ITO with embedded silver grids as transparent conductive electrodes for large area organic solar cells**

Patil, B. R., Mirsafaei, M., Cielecki, P. P., Fernandes Cauduro, A. L., Fiutowski, J., Rubahn, H.-G. & Madsen, M., 6. Oct 2017, In: Nanotechnology. 28, 40, 7 p., 405303.

**Preservation of plasmonic interactions in DLC protected robust organic-plasmonic hybrid systems**

Cielecki, P. P., Sobolewska, E. K., Kostiučenko, O., Leißner, T., Tamulevicius, T., Tamulevicius, S., Rubahn, H.-G., Adam, J. & Fiutowski, J., 15. Jun 2017.

**Excitation of Surface Plasmon Polaritons by Fluorescent Light from Organic Nanofibers**

Sobolewska, E. K., Jozefowski, L., Kawalec, T., Leißner, T., Rubahn, H.-G., Adam, J. & Fiutowski, J., 2017, In: Optics Communications. 402, p. 630-634

**Highly Stable Monocrystalline Silver Clusters for Plasmonic Applications**

Novikov, S. M., Popok, V. N., Evlyukhin, A. B., Hanif, M., Morgen, P., Fiutowski, J., Beermann, J., Rubahn, H. G. & Bozhevolnyi, S. I., 2017, In: Langmuir. 33, 24, p. 6062-6070

**Mapping Charge Carrier Density in Organic Thin-Film Transistors by Time-Resolved Photoluminescence Lifetime Studies**

Leißner, T., Jensen, P. B. W., Liu, Y., Brewer, J. R., Fiutowski, J., Rubahn, H.-G. & Kjelstrup-Hansen, J., 2017, In: Organic Electronics. 49, p. 69-75

**Plasmon-Organic Fiber Interactions in Diamond-Like Carbon Coated Nanostructured Gold Films**

Cielecki, P. P., Sobolewska, E. K., Kostiučenko, O., Leißner, T., Tamulevicius, T., Tamulevicius, S., Rubahn, H.-G., Adam, J. & Fiutowski, J., 2017, In: Optics Communications. 402, p. 635-640

**Challenges of fabricating plasmonic and photonic structures with Neon ion beam milling**

Leißner, T., Fiutowski, J., Bozhevolnyi, S. I., Rubahn, H.-G. & Chiriac, S., 8. Jun 2016. 1 p.

**Surface plasmons excited by the photoluminescence of organic nanofibers in hybrid plasmonic systems**

Sobolewska, E., Leißner, T., Jozefowski, L., Brewer, J. R., Rubahn, H.-G., Adam, J. & Fiutowski, J., 21. Apr 2016.

**Surface plasmons excited by the photoluminescence of organic nanofibers in hybrid plasmonic systems**

Sobolewska, E., Leißner, T., Jozefowski, L., Brewer, J. R., Rubahn, H.-G., Adam, J. & Fiutowski, J., 21. Apr 2016, *Nanophotonics VI*. Andrews, D. L., Nunzi, J.-M. & Ostendorf, A. (eds.). SPIE - International Society for Optical Engineering , 7 p. 98843D. (Proceedings of SPIE, the International Society for Optical Engineering, Vol. 9884).

**Amplitude and phase of surface plasmon polaritons excited at a step edge**

Klick, A., de la Cruz, S., Lemke, C., Großmann, M., Beyer, H., Fiutowski, J., Rubahn, H.-G., Mendez, E. R. & Bauer, M., 1. Apr 2016, In: Applied Physics B. 122, 4, 8 p., 79.

#### **Functionalizing micro-cantilevers for meat degradation measurements**

Wang, Y., Sobolewska, E., Fiutowski, J., Albers, J., Nebling, E., Wagner, B., Benecke, W., Rubahn, H.-G. & Oliveira Hansen, R. M. D., 2016, *Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2016*. IEEE, p. 151-154 7514858

#### **Nanoscale aluminum concaves for light-trapping in organic thin-films**

Goszczak, A. J., Adam, J., Cielecki, P. P., Fiutowski, J., Rubahn, H.-G. & Madsen, M., 2016, In: *Optics Communications*. 370, p. 135-139 5 p.

#### **Plasmonic Transmission Gratings – Fabrication and Characterization**

Sierant, A., Jany, B., Bartoszek-Bober, D., Fiutowski, J., Kawalec, T. & Adam, J., 2016.

#### **Nanostructure induced changes in lifetime and enhanced second-harmonic response of organic-plasmonic hybrids**

Leiřner, T., Kostiućenko, O., Brewer, J. R., Rubahn, H.-G. & Fiutowski, J., 21. Dec 2015, In: *Applied Physics Letters*. 107, 25, p. 251102-(1-4) 4 p.

#### **Time-resolved photoluminescence spectroscopy of organic-plasmonic hybrids**

Leiřner, T., Brewer, J. R., Fiutowski, J. & Rubahn, H.-G., 30. Sept 2015.

#### **Local field enhanced second-harmonic response of organic nanofibers deposited on encapsulated plasmonic substrates**

Kostiućenko, O., Leiřner, T., Brewer, J. R., Tamulevicius, T., Tamulevicius, S., Fiutowski, J. & Rubahn, H.-G., 28. Aug 2015, *Plasmonics: Metallic Nanostructures and Their Optical Properties XIII*. Boardman, A. D. & Tsai, D. P. (eds.). San Diego: SPIE - International Society for Optical Engineering, 6 p. (Proceedings of SPIE, the International Society for Optical Engineering, Vol. 9547).

#### **Light-Triggered Control of Plasmonic Refraction and Group Delay by Photochromic Molecular Switches**

Grořmann, M., Klick, A., Lemke, C., Falke, J., Black, M., Fiutowski, J., Goszczak, A. J., Sobolewska, E., Zillohu, A. U., Hedayati, M. K., Rubahn, H.-G., Faupel, F., Elbahri, M. & Bauer, M., 18. Aug 2015, In: *ACS Photonics*. 2, 9, p. 1327-1332

#### **Surface plasmon polariton excitation by second harmonic generation in single organic nanofibers**

Simesen, P., Søndergaard, T., Skovsen, E., Fiutowski, J., Rubahn, H.-G., Bozhevolnyi, S. I. & Pedersen, K., 11. Jun 2015, In: *Optics Express*. 23, 12, p. 16356-16363

#### **Compact wavelength add-drop multiplexers using Bragg gratings in coupled dielectric-loaded plasmonic waveguides**

Biagi, G., Fiutowski, J., Radko, I., Rubahn, H.-G., Pedersen, K. & Bozhevolnyi, S. I., 15. May 2015, In: *Optics Letters*. 40, 10, p. 2429-2432 4 p.

#### **Nanoscale Dimples for Improved Absorption in and Efficiency of Organic Solar Cells**

Goszczak, A. J., Adam, J., Cielecki, P. P., Fiutowski, J., Rubahn, H.-G. & Madsen, M., 8. Apr 2015.

#### **Local field enhanced second-harmonic response of organic nanofibers**

Leiřner, T., Kostiućenko, O., Fiutowski, J., Brewer, J. R. & Rubahn, H.-G., 22. Jan 2015.

#### **Nanoscale concave structures for field enhancement in organic thin films**

Goszczak, A. J., Adam, J., Cielecki, P. P., Fiutowski, J., Rubahn, H.-G. & Madsen, M., 2015, *Plasmonics: Metallic Nanostructures and Their Optical Properties XIII*. Boardman, A. D. & Tsai, D. P. (eds.). SPIE - International Society for Optical Engineering, 11 p. 95473I. (Proceedings of SPIE, the International Society for Optical Engineering, Vol. 9547).

#### **Nanoscale aluminum dimples for light-trapping in organic thin-films**

Goszczak, A. J., Adam, J., Cielecki, P. P., Fiutowski, J., Rubahn, H.-G. & Madsen, M., 13. Nov 2014.

#### **The complex dispersion relation of surface plasmon polaritons at gold/para-hexaphenylene interfaces**

Lemke, C., Leiřner, T., Klick, A., Fiutowski, J., Radke, J. W., Thomaschewski, M., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 1. Sept 2014, In: *Applied Physics B*. 116, 3, p. 585-591 7 p.

**Robust plasmonic substrates**

Kostiučenko, O., Fiutowski, J., Tamulevicius, T., Tamulevicius, S., Silbernagl, D., Sturm, H. & Rubahn, H.-G., 1. Jul 2014, In: Applied Physics A. 116, 1, p. 151-159

**Surface plasmon polariton dispersion relation at organic/dielectric/metal interfaces**

Kostiučenko, O., Fiutowski, J., Kawalec, T., Bordo, V., Rubahn, H.-G. & Jozefowski, L., 9. Jun 2014, In: Optics Communications. 331, p. 77-81 5 p.

**Optical dipole mirror for cold atoms based on a metallic diffraction grating**

Kawalec, T., Bartoszek-Bober, D., Panas, R., Fiutowski, J., Plawecka, A. & Rubahn, H.-G., 2. Jun 2014.

**Leakage radiation spectroscopy of organic/dielectric/metal systems: Influence of SiO<sub>2</sub> on exciton-surface plasmon polariton interaction**

Fiutowski, J., Kawalec, T., Kostiučenko, O., Bordo, V., Rubahn, H.-G. & Jozefowski, L., 2. May 2014, *Nanophotonics V*. Andrews, D. L., Nunzi, J.-M. & Ostendorf, A. (eds.). SPIE - International Society for Optical Engineering, p. 1-6 6 p. 912633. (Proceedings of SPIE, the International Society for Optical Engineering).

**Field-enhanced nonlinear optical properties of organic nanofibers**

Kostiučenko, O., Fiutowski, J., Brewer, J. R. & Rubahn, H.-G., 1. May 2014, *Nonlinear Optics and Its Applications VIII; and Quantum Optics III*. Durt, T., Eggleton, B. J., Gaeta, A. L., Sergienko, A. V., Rauschenbeutel, A. & Broderick, N. G. R. (eds.). SPIE - International Society for Optical Engineering, p. 1-6 6 p. 913618. (Proceedings of SPIE, the International Society for Optical Engineering).

**Field-enhanced nonlinear optical properties of organic nanofibers**

Kostiučenko, O., Fiutowski, J., Brewer, J. R. & Rubahn, H.-G., 15. Apr 2014. 1 p.

**Leakage radiation spectroscopy of organic/dielectric/metal systems: influence of SiO<sub>2</sub> on exciton-surface plasmon polariton interaction**

Fiutowski, J., Kawalec, T., Kostiučenko, O., Bordo, V., Rubahn, H.-G. & Jozefowski, L., 15. Apr 2014. 1 p.

**The Interplay between Localized and Propagating Plasmonic Excitations Tracked in Space and Time**

Lemke, C., Leišner, T., Evlyukhin, A., Radke, J. W., Klick, A., Fiutowski, J., Kjelstrup-Hansen, J., Rubahn, H.-G., Chichkov, B. N., Reinhardt, C. & Bauer, M., 4. Apr 2014, In: Nano Letters. 14, 5, p. 2431-2435 5 p.

**Optical dipole mirror for cold atoms based on a metallic diffraction grating**

Kawalec, T., Bartoszek-Bober, D., Panas, R., Fiutowski, J., Plawecka, A. & Rubahn, H.-G., 2014, In: Optics Letters. 39, 10, p. 2932-2935

**Measurement of surface plasmon autocorrelation functions**

Lemke, C., Leišner, T., Klick, A., Radke, J. W., Fiutowski, J., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 4. Nov 2013, In: Optics Express. 21, 22, p. 27392-27401 10 p.

**Morphological Tuning of the Plasmon Dispersion Relation in Dielectric-Loaded Nanofiber Waveguides**

Leišner, T., Lemke, C., Fiutowski, J., Willers Radke, J., Klick, A., Tavares, L., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 24. Jul 2013, In: Physical Review Letters. 111, 4, 5 p., 046802.

**Morphological Tuning of the Plasmon Dispersion Relation in Dielectric-Loaded Nanofiber Waveguides**

Leišner, T., Lemke, C., Fiutowski, J., Willers Radke, J., Klick, A., Tavares, L., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 8. Jul 2013. 1 p.

**Surface plasmon polariton propagation in organic nanofiber based plasmonic waveguides**

Leišner, T., Lemke, C., Jauernik, S., Müller, M., Fiutowski, J., Tavares, L., Thilsing-Hansen, K., Kjelstrup-Hansen, J., Magnussen, O., Rubahn, H.-G. & Bauer, M., 28. Mar 2013, In: Optics Express. 21, 7, p. 8251-8260 10 p.

**Evanescence wave mirror for cold atoms—A quasi-resonant case**

Fiutowski, J., Bartoszek-Bober, D., Dohnalik, T. & Kawalec, T., 2013, In: Optics Communications. 297, June, p. 59-64 6 p.

**Leakage radiation spectroscopy of organic nanofibers on metal films: evidence for exciton-surface plasmon polariton interaction**

Jozefowski, L., Fiutowski, J., Bordo, V. & Rubahn, H.-G., 9. Oct 2012, In: Proceedings of SPIE, the International Society for Optical Engineering. 8457, 84571A, p. 84571A 1-6 6 p.

**Mapping of electromagnetic fields enhanced by gold nanostructures**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Kjelstrup-Hansen, J. & Rubahn, H.-G., 5. Oct 2012

**Application of a grating coupler for surface plasmon polariton excitation in a photoemission electron microscopy experiment**

Leißner, T., Jauernik, S., Lemke, C., Fiutowski, J., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 30. Apr 2012. 6 p.

**Surface structure enhanced second harmonic generation in organic nanofibers**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Osadnik, A., Lützen, A. & Rubahn, H.-G., 30. Apr 2012. 6 p.

**Surface structure enhanced second harmonic generation in organic nanofibers**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Osadnik, A., Lützen, A. & Rubahn, H.-G., 16. Apr 2012.

**Local excitation of surface plasmon polaritons by second-harmonic generation in crystalline organic nanofibers**

Skovsen, E., Søndergaard, T., Fiutowski, J., Simesen, P., Osadnik, A., Lützen, A., Rubahn, H.-G., Bozhevolnyi, S. I. & Pedersen, K., 2012, In: Optics Express. 20, 15, p. 16715-16725 11 p.

**Mapping of gold nanostructure-enhanced near fields via laser scanning second-harmonic generation and ablation**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Kjelstrup-Hansen, J. & Rubahn, H.-G., 2012, In: Journal of Nanophotonics. 6, p. 063515-1-11 11 p.

**Mapping surface plasmon polariton propagation via counter-propagating light pulses**

Lemke, C., Leißner, T., Jauernik, S., Klick, A., Fiutowski, J., Kjelstrup-Hansen, J., Rubahn, H.-G. & Bauer, M., 2012, In: Optics Express. 20, 12, p. 12877-12884

**Surface plasmon polariton generation by light scattering off aligned organic nanofibers**

Skovsen, E., Søndergaard, T., Fiutowski, J., Rubahn, H.-G. & Pedersen, K., 2012, In: Journal of the Optical Society of America B: Optical Physics. 29, 2, p. 249-256 8 p.

**Near-field mapping by laser ablation of PMMA coatings**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Kjelstrup-Hansen, J. & Rubahn, H.-G., 21. Aug 2011. 1 p.

**Near-field mapping by laser ablation of PMMA coatings**

Fiutowski, J., Maibohm, C., Kostiučenko, O., Kjelstrup-Hansen, J. & Rubahn, H.-G., 21. Aug 2011, *Plasmonics: Metallic Nanostructures and Their Optical Properties Ix*. Stockman, M. I. (ed.). SPIE - International Society for Optical Engineering, Vol. 8096. 8 p. (Proceedings of SPIE, the International Society for Optical Engineering).

**Laser ablation of polymer coatings allows for electromagnetic field enhancement mapping around nanostructures**

Fiutowski, J., Maibohm, C., Kjelstrup-Hansen, J. & Rubahn, H.-G., 13. May 2011, In: Applied Physics Letters. 98, 19, p. 193117 3 p.

**Field enhancement induced laser ablation**

Fiutowski, J., Maibohm, C., Kjelstrup-Hansen, J. & Rubahn, H.-G., 2011.



**Organic nanofiber-loaded surface plasmon-polariton waveguides**

Radko, I., Fiutowski, J., Tavares, L., Rubahn, H.-G. & Bozhevolnyi, S. I., 2011, In: Optics Express. 19, 16, p. 15155-15161

**Optical surface devices for atomic and atom physics**

Bartoszek, D., Fiutowski, J., Dohnalik, T. & Kawalec, T., 2010, In: Optica Applicata. 40, 3, p. 535-546 12 p.

**Flexible optical dipole mirror for cold atoms**

Kawalec, T., Kiersnowski, K., Fiutowski, J. & Dohnalik, T., Oct 2008, In: Acta Physica Polonica A. 114, 4, p. 721-730 10 p.

**Light scattering from an ordered array of needle-shaped organic nanoaggregates: Evidence for optical mode launching**

Fiutowski, J., Bordo, V. G., Jozefowski, L., Madsen, M. & Rubahn, H.-G., 19. Feb 2008, In: Applied Physics Letters. 92, p. 073302 3 p.

**Spectroscopic measurements of the evanescent wave polarization state**

Kawalec, T., Józefowski, L., Fiutowski, J., Kasprowicz, M. J. & Dohnalik, T., 15. Jun 2007, In: Optics Communications. 274, 2, p. 341-346 6 p.

**Direct measurement of the evanescent wave polarization state**

Rubahn, H.-G., Jozefowski, L., Fiutowski, J. & Kawalec, T., 2007, In: Journal of the Optical Society of America B: Optical Physics. 24, p. 624-628