

List of publications

Patents

1. **Plasmonic metamaterial structure.**

A. V. Zayats, P. Wang, M. E. Nasir, W. Dickson, and A. V. Krasavin, international application published under No. WO 2018/134592 (2018).

Book contributions

4. **Nonlinear plasmonic metasurfaces.** (Chapter)

G. Sartorello, A. V. Krasavin, A. E. Minovich, and A. V. Zayats, as a part of “*Nonlinear Meta-optics*”, edited by C. De Angelis, D. Neshev, and G. Leo (ISBN 978-1-138-57654-4, CRC Taylor and Francis, 2020).

3. **Nonlinear nanoplasmonics.** (Chapter)

A. V. Krasavin, P. Ginzburg, and A. V. Zayats, as a part of “*Quantum Photonics: Pioneering Advances and Emerging Applications*”, edited by R. W. Boyd, S. G. Lukishova, and V. N. Zadkov (ISBN 978-3-319-98400-1, Springer, 2019).

2. **Hydrodynamic model for nonlinear plasmonics.** (Chapter)

A. V. Krasavin, P. Ginzburg, G. A. Wurtz, and A. V. Zayats, as a part of “*Recent Trends in Computational Photonics*”, edited by A. Agrawal, T. Benson, G. A. Wurtz, and R. De La Rue (ISBN 978-3-319-55437-2, Springer, 2017).

1. **Active plasmonics.** (Chapter)

A. V. Krasavin, K. F. MacDonald, and N. I. Zheludev, as a part of “*Nanophotonics with Surface Plasmons*”, edited by V. M. Shalaev and S. Kawata (ISBN 978-0-444-52838-4, Elsevier Science, 2007).

Journal articles

78. **Effect of mirror quality on optical response of nanoparticle-on-mirror plasmonic nanocavities.**
Z. Wang, L. Liu, D. Zhang, A. V. Krasavin, J. Zheng, C. Pan, E. He, Z. Wang, S. Zhong, Z. Li, M. Ren, X. Guo, A. V. Zayats, and L. Tong, and P. Wang, *Advanced Optical Materials* **11**, 2201914 (2023).
77. **Molecular plasmonics with metamaterials.**
P. Wang, A. V. Krasavin, L. Liu, Y. Jiang, Z. Li, X. Guo, L. Tong, and A. V. Zayats, *Chemical Reviews* **122**, 15031 (2022).
76. **Humidity-induced direct modification of the optical response of plasmonic nanorod metamaterials.**
Y. Jiang, A. V. Krasavin, M. E. Nasir, P. Wang, and A. V. Zayats, *Optical Materials Express* **12**, 4574 (2022).
75. **Temperature stability of individual plasmonic Au and TiN nanodiscs.**
R. Bower, C. P. T. McPolin, A. V. Krasavin, A. V. Zayats, and P. K. Petrov, *Optical Materials Express* **12**, 3471 (2022).
74. **Atomically smooth single-crystalline platform for low-loss plasmonic nanocavities.**
L. Liu, A. V. Krasavin, J. Zheng, Y. Tong, P. Wang, X. Wu, B. Hecht, C. Pan, J. Li, L. Li, X. Guo, A. V. Zayats, and L. Tong, *Nano Letters* **22**, 1786 (2022).
73. **Dual-mode independent detection of pressure and refractive index by miniature grating-coupled surface plasmon sensor.**
H. Ni, L. Zhang, A. Ping, A. V. Krasavin, H. Ali, B. Ni, and J. Chang, *Optics Express* **30**, 5758 (2022).
72. **A brief review on optical properties of planar metallic interfaces and films: from classical view to quantum description.**
A. V. Krasavin, *Journal of Physics: Photonics* **3**, 042006 (2021).
71. **Mode engineering in large arrays of coupled plasmonic-dielectric nanoantennas.**
M. E. Nasir, A. V. Krasavin, R. M. Córdova-Castro, C. P. T. McPolin, J.-S. G. Bouillard, P. Wang, and A. V. Zayats, *Advanced Optical Materials* **9**, 2001467 (2021).
70. **Self-assembled plasmonic coaxial nanocavities for high-definition broad-angle coloring in reflection and transmission.**
H. Ni, A. V. Krasavin, L. Zhang, A. Ping, C. Pan, J. Cheng, M. Wang, J. Chang, and A. V. Zayats, *Advanced Optical Materials* **9**, 2001923 (2021).
69. **Rational design of bimetallic photocatalysts based on plasmonically-derived hot carriers.**
J. U. Salmón-Gamboa, M. Romero-Gómez, D. J. Roth, A. V. Krasavin, P. Wang, W. Dickson, and A. V. Zayats, *Nanoscale Advances* **3**, 767 (2021).
68. **Reconfigurable cavity-based plasmonic platform for resonantly enhanced sub-bandgap photodetection.**
C. P. T. McPolin, M. Romero-Gómez, A. V. Krasavin, W. Dickson, and A. V. Zayats, *Journal of Applied Physics* **128**, 203101 (2020).
67. **Lasing at the nanoscale: Coherent emission of surface plasmons by an electrically driven nanolaser.**
D. Yu. Fedyanin, A. V. Krasavin, A. V. Arsenin, and A. V. Zayats, *Nanophotonics* **9**, 3965 (2020).

66. **Excitation of surface plasmons by inelastic electron tunneling.**
L. Liu, Y. Xu, J. Zhu, P. Wang, L. Tong, and A. V. Krasavin, *Frontiers in Physics* **8**, 251 (2020).
65. **Optoelectronic synapses based on hot-electron-induced chemical processes.**
P. Wang, M. E. Nasir, A. V. Krasavin, W. Dickson, and A. V. Zayats, *Nano Letters* **20**, 1536 (2020).
64. **Tunneling-induced broadband and tuneable optical emission from plasmonic nanorod metamaterials.**
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63. **Plasmonic metamaterials for nanochemistry and sensing.**
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62. **Polarization dependence of second harmonic generation from plasmonic nanoprism arrays.**
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61. **Anisotropic plasmonic CuS nanocrystals as a natural electronic material with hyperbolic optical dispersion.**
R. M. Córdoba-Castro, M. Casavola, M. van Schilfgaarde, A. V. Krasavin, M. Green, D. Richards, and A. V. Zayats, *ACS Nano* **13**, 6550 (2019).
60. **Nanocone-based plasmonic metamaterials.**
R. M. Córdoba-Castro, A. V. Krasavin, M. E. Nasir, A. V. Zayats, and W. Dickson, *Nanotechnology* **30**, 055301 (2019).
59. **Optimizing hot carrier effects in Pt-decorated plasmonic heterostructures.**
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56. **Imaging electric and magnetic modes and their hybridization in single and dimer AlGaAs nanoantennas.**
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54. **Generalization of optical theorem: Experimental proof for radially polarized beams.**
A. V. Krasavin, P. Segovia, R. Dubrovka, N. Olivier, G. A. Wurtz, P. Ginzburg, and A. V. Zayats, *Light: Science & Applications* **7**, 36 (2018).

53. **Evidence of high-order nonlinearities in supercontinuum white-light generation from a gold nanofilm.**
J. Chen, A. Krasavin, P. Ginzburg, A. Zayats, T. Pullerits, K. Karki, *ACS Photonics* **5**, 1927 (2018).
52. **Second-harmonic generation from hyperbolic plasmonic nanorod metamaterial slab.**
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50. **Reactive tunnel junctions in electrically driven plasmonic nanorod metamaterials.**
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49. **Spontaneous emission inside a hyperbolic metamaterial waveguide.**
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48. **Spontaneous emission in non-local materials.**
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46. **Benchmarking system-level performance of passive and active plasmonic components: Integrated circuits approach.**
A. V. Krasavin and A. V. Zayats, *Proceedings of the IEEE*, **104**, 2338 (2016).
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40. **Active nanophotonic circuitry based on dielectric-loaded plasmonic waveguides.**
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28. **Photonic signal processing on electronic scales: Electro-optical field-effect nanoplasmonic modulator.**
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19. **Silicon-based plasmonic waveguides.**
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13. **Bend- and splitting loss of dielectric-loaded surface plasmon-polariton waveguides.**
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10. **Passive photonic elements based on dielectric-loaded surface plasmon polariton waveguides.**
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9. **Gallium/aluminum nanocomposite material for nonlinear optics and nonlinear plasmonics.**
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7. **Broken enantiomeric symmetry for electromagnetic waves interacting with planar chiral nanostructures.**
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5. **Polarization conversion and “focusing” of light propagating through a small chiral hole in a metallic screen.**
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4. **Active control of surface plasmon-polariton waves.**
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3. **High-contrast modulation of light with light by control of surface plasmon polariton wave coupling.**
A. V. Krasavin, A. V. Zayats, K. F. MacDonald, and N. I. Zheludev, *Applied Physics Letters* **85**, 3369 (2004).
2. **Active plasmonics: Controlling signals in Au/Ga waveguide using nanoscale structural transformations.**
A. V. Krasavin and N. I. Zheludev, *Applied Physics Letters* **84**, 1416 (2004).
1. **Broken time reversal of light interaction with planar chiral nanostructures.**
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Other articles

2. **Nonlocal nonlinear plasmonics.**
A. V. Krasavin, P. Ginzburg, G. A. Wurtz, and A. V. Zayats, in *SPIE Newsroom* (2016).
1. **Nonlinear plasmonics: Controlling light with light.**
W. Dickson, A. Krasavin, A. V. Zayats, and G. A. Wurtz, in *SPIE Newsroom* (2009).

Conference presentations

174. **Tailoring complex vector beams and pulses with strongly anisotropic metamaterials. (Invited)**
D. Roth, V. Aita, T. Stefaniuk, M. Shevchenko, A. Krasavin, and A. Zayats, in *The 16th International Congress on Artificial Materials for Novel Wave Phenomena* (2022).
173. **Temperature stability of individual plasmonic Au and TiN nanodiscs.**
R. Bower, C. P. T. McPolin, A. V. Krasavin, and A. V. Zayats, in *SPIE Advanced Electronic and Photonic Materials*, paper AM101-44 (2022).
172. **Tailoring optical field topologies with plasmonics and metamaterials. (Keynote)**
A. V. Krasavin, V. Aita, D. J. Roth, A. Yu. Bykov, and A. V. Zayats, in *SPIE Optics and Photonics*, paper 12197-24 (2022).
171. **Interaction of complex beams with strongly anisotropic ENZ metamaterials.**
V. Aita, D. Roth, A. Zaleska, A. V. Krasavin, L. H. Nicholls, N. A. Shevchenko, F. J. Rodriguez-Fortuno, and A. V. Zayats, in *META 2022* (2022).
170. **Ultrafast manipulation of light with nanorod plasmonic metamaterials. (Invited)**
A. Krasavin, L. Nicholls, A. Neira, F. Rodríguez-Fortuno, M. Nasir, G. Wurtz, and A. Zayats, in *META 2022* (2022).
169. **High-resolution broad-angle colour definition with self-assembled plasmonic coaxial nanocavity arrays.**
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167. **Interaction of complex beams with anisotropic metamaterials.**
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166. **Wavelength-tuneable photoacoustics in plasmonic Au/SiO₂/Au nanoparticles.**
Y. Xie, A. Bykov, A. Krasavin, P. Wang, and A. Zayats, in *SPIE Photonics Europe* (2022).
165. **Aluminium nanorod metamaterials as sensing platform for label-free DNA detection in the UV.**
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164. **Large scale fabrication of plasmonic nanorod metamaterials.**
M. E. Nasir, A. V. Krasavin, and A. V. Zayats, in *Metamaterials Manufacturing at the Nanometre Length Scale Meeting* (2021).
163. **Optoelectronic synapses based on hot-electron-driven reactive tunnel junctions.**
P. Wang, M. E. Nasir, A. V. Krasavin, W. Dickson, and A. V. Zayats, in *London Plasmonics Forum* (2021).
162. **Refractory nano-plasmonic materials.**
R. Bower, C. McPolin, A. Krasavin, A. V. Zayats, and P. K. Petrov, in *London Plasmonics Forum* (2021).

161. **Reconfigurable cavity-based plasmonic platform for resonantly enhanced sub-bandgap photodetection.**
C. P. T. McPolin, M. Romero Gomez, A. V. Krasavin, W. Dickson, and A. V. Zayats, in *London Plasmonics Forum* (2021).
160. **Metamaterial-enhanced photoluminescence spectroscopy. (Invited)**
D. J. Roth, P. Ginzburg, M. E. Nasir, A. V. Krasavin, K. Suhling, D. Richards, V. A. Podolskiy, and A. V. Zayats, in *SPIE Nanoscience + Engineering* (2020).
159. **Highly tunable Aluminium metamaterials for hot carrier generation.**
R. M. Romero Gomez, C. McPollin, A. Krasavin, M. E. Nasir, W. P. Wardley, F. J. Rodriguez Fortuno, A. V. Zayats, and W. Dickson, in *London Plasmonics Forum* (2020).
158. **Electrically-driven plasmonic nanorod metamaterials.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2019).
157. **Hot-electron effects in electrically-driven plasmonic nanostructures: Light, sensing and artificial synapses.**
A. Krasavin, A. Zayats, Y. Jiang, P. Wang, and M. Nasir, in *Materials Research Meeting*, paper G4-13-K04 (2019).
156. **Electrically driven chemical reactions.**
P. Wang, A. V. Krasavin, Y. Jiang, M. E. Nasir, and A. V. Zayats, in *Catalysis Hub Meeting* (2019).
155. **Hot-electron effects in electrically-driven plasmonic nanostructures. (Keynote)**
P. Wang, A. Krasavin, and A. V. Zayats, in *SPIE/COS Photonics Asia*, paper 11194-7 (2019).
154. **Plasmonic metamaterials for sensing applications.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *META 2019* (2019).
153. **Optoelectronic memristors based on reactive tunnel junctions.**
P. Wang, A. V. Krasavin, M. E. Nasir, and A. V. Zayats, in *MEMRISYS 2019* (2019).
152. **Taming ultrafast nonlinear response of plasmonic nanostructures. (Invited)**
L. H. Nicholls, F. J. Rodriguez Fortuno, A. V. Krasavin, G. A. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2019).
151. **Nanoscale light in resonant nanostructures. (Invited)**
C. P. T. McPolin, P. Wang, A. V. Krasavin, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2019).
150. **Hot-electron effects in plasmonic heterostructures. (Invited)**
P. Wang, J. Salmon, A. Bykov, G. Sartorello, D. Roth, A. V. Krasavin, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2019).
149. **Plasmonic metamaterials for high-sensitivity sensing applications. (Invited)**
P. Wang, M. Nasir, A. Krasavin, W. Dickson, and A. Zayats, in *The 9th International Multidisciplinary Conference on Optofluidics* (2019).
148. **Memristive plasmonic tunnel junctions. (Invited)**
A. V. Krasavin, P. Wang, M. E. Nasir, W. Dickson and A. V. Zayats, in *London Plasmonics Forum* (2019).

147. **Optimizing hot carrier effects in Pt-decorated plasmonic heterostructures.**
J. U. Salmon-Gamboa, M. Romero-Gómez, D. J Roth, M. J Barber, P. Wang, S. M. Fairclough, M. E Nasir, A. V Krasavin, W. Dickson, and A. Zayats, in *Faraday Discussions* (2019).
146. **Hot-electron generation in plasmonic nanocone-based metamaterials.**
R. M. Cordova-Castro, A. V. Krasavin, P. Wang, J. Salmon, C. McPolin, L. Nicholls, A. Bykov, M. E. Nasir, A. Zair, W. Dickson, and A. Zayats, in *Faraday Discussions* (2019).
145. **Electro-photo-chemistry in plasmonic tunnel junctions.**
P. Wang, A. Krasavin, M. Nasir, W. Dickson, and A. V. Zayats, in *Faraday Discussions* (2019).
144. **Metaparticles: Zero-dimensional hyperbolic metamaterials.**
P. Wang, A. V. Krasavin, F. N. Viscomi, A. M. Adawi, J.-S. G. Bouillard, L. Zhang, D. J. Roth, L. Tong, A. V. Zayats, in *The 7th International Topical Meeting on Nanophotonics and Metamaterials*, paper Sat4f.59 (2019).
143. **Scattering of radially polarized light: Generalization of the optical theorem.**
A. V. Krasavin, P. Segovia, R. Dubrovka, N. Olivier, P. Ginzburg, A. V. Zayats, in *The 7th International Topical Meeting on Nanophotonics and Metamaterials*, paper Sat4f.50 (2019).
142. **On the plasmonic metamaterials for photovoltaics by controlling field enhancement.**
R. M. Cordova-Castro, A. V. Krasavin, P. Wang, M. E. Nasir, W. Dickson, and A. Zayats, in *PlusAlliance Workshop* (2018).
141. **Electron dynamics in plasmonic nanostructures in hydrodynamic description (and beyond).**
A. V. Krasavin, P. Ginzburg, L. Nicholls, G. A. Wurtz, and A. Zayats, in *PlusAlliance Workshop* (2018).
140. **Plasmonic metamaterials.**
W. Dickson, M. Nasir, M. Cordova-Castro, A. Zaleska, A. Krasavin, P. Wang, G. Wurtz, and A. Zayats, in *PlusAlliance Workshop* (2018).
139. **Fabrication, characterization and applications of a gradient refractive index plasmonic metamaterial.**
R. M. Córdoba-Castro, B. Wells, A. V. Krasavin, M. E. Nasir, W. Dickson, V. A. Podolskiy, and A. V. Zayats, in *The 12th International Congress on Artificial Materials for Novel Wave Phenomena* (2018).
138. **Nonlinearities in plasmonic nanostructures: Hydrodynamic description. (Invited)**
A. Krasavin, P. Ginzburg, and A. V. Zayats, in *SPIE Optics + Photonics*, paper 10731-4 (2018).
137. **Electrically driven plasmonic nanorod metamaterials. (Invited)**
P. Wang, A. Krasavin, M. Nasir, and A. V. Zayats, in *SPIE Optics + Photonics*, paper 10719-58 (2018).
136. **Nonlinear Kerr-optics with plasmonic nanorod metamaterials. (Invited)**
L. H. Nicholls, A. D. Neira, F. J. Rodriguez Fortuno, M. E. Nasir, A. V. Krasavin, G. A. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2018).
135. **Generalization of optical theorem for complex vectorial beams. (Invited)**
A. V. Krasavin, P. Segovia, R. Dubrovka, N. Olivier, G. A. Wurtz, P. B. Ginzburg, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2018).

134. **Electrically-driven nanoscale chemistry with plasmonic nanorod metamaterials. (Invited)**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2018).
133. **Electrical generation of hot electrons in plasmonic nanorod metamaterials. (Invited)**
P. Wang, A. Krasavin, M. Nasir, W. Dickson, and A. Zayats, in *META 2018, The 9th International Conference on Metamaterials, Photonic Crystals and Plasmonics* (2018).
132. **Waveguided modes, nonlinearity and magneto-optics in self-assembled metamaterials. (Invited)**
M. E. Nasir, P. Wang, A. Bykov, A. V. Krasavin, B. Fan, V. A. Podolskiy, and A. V. Zayats, in *META 2018, The 9th International Conference on Metamaterials, Photonic Crystals and Plasmonics* (2018).
131. **Large area self-assembled split-nanorod metamaterials. (Invited)**
M. E. Nasir, R. M. Cordova-Castro, J.-S. Bouillard, P. Wang, A. V. Krasavin, and A. V. Zayats, in *META 2018, The 9th International Conference on Metamaterials, Photonic Crystals and Plasmonics* (2018).
130. **Engineering optical responses of plasmonic objects with a hyperbolic coating.**
P. Wang, A. Krasavin, F. Viscomi, A. Adawi, J.-S. Bouillard, D. Roth, G. Sartorello, and A. Zayats, in *META 2018, The 9th International Conference on Metamaterials, Photonic Crystals and Plasmonics* (2018).
129. **Chemistry and light with tunnelling electrons. (Invited)**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *London Plasmonics Forum* (2018).
128. **Mind the nanoscale gap: Tunnel junctions beyond electronic transport. (Invited)**
P. Wang, A. V. Krasavin, M. E. Nasir, and A. V. Zayats, in *The International Symposium On Plasmonics and Nano-photonics* (2018).
127. **Hot electrons in electrically driven plasmonic nanorod metamaterials.**
P. Wang, A. Krasavin, M. Nasir, W. Dickson, A. Zayats, in *SPIE Photonics Europe*, paper 10671-47 (2018).
126. **Structured hyperbolic metamaterials for control of spontaneous emission.**
D. Roth, M. E. Nasir, A. V. Krasavin, P. Ginzburg, W. Dickson, D. Richards, V. A. Podolskiy, A. V. Zayats, in *SPIE Photonics Europe*, paper 10671-23 (2018).
125. **Controlling light at the nanoscale: from metallic nanoparticles to novel artificial materials.**
R. M. Cordova-Castro, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *STEM for Britain* (2018).
124. **Electrically driven metamaterials. (Invited)**
P. Wang, A. V. Krasavin, M. Nasir, and A. V. Zayats, in *SPIE Photonics West*, paper 10536-26 (2018).
123. **Nonlinear components for polarization control. (Invited)**
L. Nicholls, F. J. Rodriguez Fortuno, M. Nasir, A. V. Krasavin, G. A. Wurtz, and A. V. Zayats, in *SPIE Photonics West*, paper 10535-11 (2018).
122. **Field enhancement in strongly-coupled plasmonic nanocone metamaterials.**
R. M. Cordova-Castro, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *Metamaterials 2017* (2017).

121. **Macroscale ultrasharp nanocone metamaterials - optical properties and applications. (Invited)**
M. Cordova-Castro, W. P. Wardley, M. E. Nasir, G. A. Wurtz, A. Krasavin, A. V. Zayats, and W. Dickson, in *META'17, the 8th International Conference on Metamaterials, Photonic Crystals and Plasmonics* (2017).
120. **Controlling field enhancement with plasmonic nanocone metamaterials.**
R. M. Cordova-Castro, M. E. Nasir, A. V. Krasavin, W. Dickson, and A. V. Zayats, in *CLEO/Europe-EQEC 2017*, paper EH-P.15 WED (2017).
119. **Accelerating spontaneous emission with metamaterials. (Invited)**
D. Roth, P. Wang, M. E. Nasir, A. V. Krasavin, B. Wells, P. Ginzburg, D. R. Richards, V. A. Podolskiy, and A. V. Zayats, in *The 9th International Conference on Materials for Advanced Technologies* (2017).
118. **Engineering ultrafast nonlinearities with metamaterials and metasurfaces. (Invited)**
L. Nicholls, T. Stefaniuk, A. V. Krasavin, G. Sartorello, G. Marino, M. E. Nasir, W. Dickson, G. A. Wurtz, F. J. Rodrigues-Fortuno, and A. V. Zayats, in *The 9th International Conference on Materials for Advanced Technologies* (2017).
117. **Investigation of cathodoluminescence emission from Si and Au/Si nanostructures.**
Y. Nel Vila, C. McPolin, A. Krasavin, and A. V. Zayats, in *London Plasmonics Forum* (2017).
116. **Switchable dielectric trapping of plasmonic and magnetic nanoparticles.**
T. Brick, A. Bykov, M. Cordova Castro, E. Cortés, A. Krasavin, A. Lauri, and J. Salmon, in *London Plasmonics Forum* (2017).
115. **Nonlocal nonlinear plasmonics in hydrodynamic description.**
A. V. Krasavin, P. Ginzburg, and A. V. Zayats, in *The 8th International Conference on Surface Plasmon Photonics*, paper Oral-85 (2017).
114. **Benchmarking active and passive plasmonic components for nanophotonic circuitry.**
A. V. Krasavin and A. V. Zayats, in *The 8th International Conference on Surface Plasmon Photonics*, paper P-07-86 (2017).
113. **Electrically-driven plasmonic nanorod metamaterials.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *The 8th International Conference on Surface Plasmon Photonics*, paper Oral-19 (2017).
112. **Nonlinear optics of plasmonic metamaterials. (Invited)**
A. V. Krasavin, A. D. Neira, G. Sartorello, L. Nicholls, G. A. Wurtz, and A. V. Zayats, in *CLEO 2017*, paper FTh1G.6 (2017).
111. **Engineering optical density of states with nonlocal metamaterials. (Invited)**
V. A. Podolskiy, P. Ginzburg, D. Roth, A. Krasavin, B. Wells, and A. Zayats, in *CLEO 2017*, paper FTh1G.1 (2017).
110. **Nonlinear plasmonics in nonperturbative hydrodynamic model. (Invited)**
A. V. Krasavin, G. Marino, P. Ginzburg, G. A. Wurtz, and A. V. Zayats, in *SPIE Photonics West*, paper 10111-54 (2017).
109. **Electrically-driven plasmonic nanorod metamaterials.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *SPIE Photonics Asia*, paper 10028-47 (2016).

108. **Metallic nanostructures for active control of light. (Invited)**
A. V. Krasavin and A. V. Zayats, in *OSA Subwavelength Photonics Incubator* (2016).
107. **Shape matters: Tuning plasmonic resonances in single nanoparticles and their arrays.**
R. M. Córdoba, A. Krasavin, W. Dickson, E. R. Méndez, A. Zayats, in *SPIE Optics + Photonics*, paper 9921-63 (2016).
106. **Spontaneous emission and non-radiative processes inside a hyperbolic metamaterial. (Invited)**
D. Roth, M. E. Nasir, A. V. Krasavin, P. Ginzburg, W. Dickson, A. Le Marois, K. Suhling, D. R. Richards, V. A. Podolskiy, A. V. Zayats, in *SPIE Nanoscience + Engineering*, paper 9920-45 (2016).
105. **Figures of merit for passive and active plasmonic circuits. (Invited)**
A. V. Krasavin and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2016).
104. **Second-harmonic generation in hyperbolic plasmonic nanorod metamaterials. (Invited)**
A. V. Krasavin, G. Marino, P. Segovia, N. Olivier, P. Ginzburg, G. A. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2016).
103. **Nonlocal nonlinear plasmonics. (Invited)**
A. V. Krasavin, P. Ginzburg, G. Marino, P. Segovia, G. A. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium* (2016).
102. **Nonlinear optics and optomechanics with plasmonic metamaterials. (Invited)**
L. Nicholls, T. Stefaniuk, G. Sartorello, G. Marino, A. V. Krasavin, F. Rodrigues Fortuno, W. Dickson, and A. V. Zayats, in *International Conference on Optical MEMS and Nanophotonics*, paper Mo2.11 (2016).
101. **Tuning plasmonic resonances in single nanoparticles and their arrays.**
R. M. Córdoba, A. Krasavin, W. Dickson, E. R. Méndez, A. Zayats, in *The 12th International Symposium on Photonic and Electromagnetic Crystal Structures* (2016).
100. **Shape matters: Tuning plasmonic resonances in single nanoparticles and their arrays.**
R. M. Córdoba-Castro, A. Krasavin, W. Dickson, E. Méndez, A. Zayats, in *Plasmonics and Light Scattering Workshop* (2016).
99. **Electrically-driven emission from plasmonic nanorod metamaterials.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *London Plasmonics Forum* (2016).
98. **Frequency tuneable second-harmonic generation in plasmonic nanorod metamaterial slab.**
G. Marino, P. Segovia, A. V. Krasavin, P. Ginzburg, M. E. Nasir, W. Dickson, N. Olivier, G. Wurtz, and A. Zayats, in *London Plasmonics Forum* (2016).
97. **Field enhancement in Au nanocone metamaterials.**
R. M. Córdoba, M. Nasir, A. Krasavin, W. Dickson, A. Zayats, in *London Plasmonics Forum* (2016).
96. **Ultrafast coherent nonlinear response in arrays of multipolar plasmonic resonators.**
G. Sartorello, N. Olivier, J. Zhang, W. Yue, D. Gozstola, O. Wiederrecht, A. Krasavin, P. Ginzburg, G. Wurtz, and A. Zayats, in *London Plasmonics Forum* (2016).
95. **Frequency tuneable second-harmonic generation in plasmonic nanorod metamaterial slab.**
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94. **Electrically driven plasmonic nanorod metamaterials.**
P. Wang, A. V. Krasavin, M. E. Nasir, W. Dickson, and A. V. Zayats, in *SPIE Photonics Europe 2016*, paper 9884-71 (2016).
93. **Plasmonic modulators based on bismuth ferrite for low-loss optical switching.**
V. E. Babicheva, S. V. Zhukovsky, A. V. Krasavin, A. V. Zayats, and A. V. Lavrinenko, in *MRS Fall Meeting*, paper GG10.06 (2015).
92. **Nonlinearities in hyperbolic plasmonic metamaterials.**
A. D. Barbosa Neira, S. Peruch, G. Marini, M. Nasir, A. V. Krasavin, N. Olivier, W. Dickson, G. A. Wurtz, and A. V. Zayats, in *SPIE Optics + Photonics*, paper 9544-35 (2015).
91. **Control of ultrafast coherent nonlinear response of plasmonic metasurfaces. (Invited).**
G. Sartorello, N. Olivier, J. Zhang, W. Yue, A. V. Krasavin, P. Ginzburg, G. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium*, Abstract Book, p. 935 (2015).
90. **Hydrodynamic model for nonlinear plasmonics: From nonlinear mode coupling to supercontinuum generation. (Invited)**
A. V. Krasavin, P. Ginzburg, G. Sartorello, P. Segovia, G. Marino, G. Wurtz, and A. V. Zayats, in *Progress In Electromagnetics Research Symposium*, Abstract Book, p. 861 (2015).
89. **Ultrafast all-optical switching of surface plasmon polariton modes via Fano resonances.**
C. McPolin, N. Olivier, J.-S. Bouillard, D. O'Connor, A. Krasavin, W. Dickson, G. A. Wurtz, and A. V. Zayats, in *CLEO/Europe-EQEC*, paper EH-4.2 (2015).
88. **Active plasmonic circuitry.**
A. V. Krasavin, and A. V. Zayats, in *London Plasmonics Forum* (2015).
87. **Second harmonic generation from uniaxial plasmonic metamaterials: From elliptical to hyperbolic dispersion regimes.**
G. Marino, P. Segovia, A. V. Krasavin, P. Ginzburg, M. E. Nasir, W. Dickson, N. Olivier, G. Wurtz, and A. Zayats, in *The 7th International Conference on Surface Plasmon Photonics*, paper Th-04-P-54 (2015).
86. **Ultrafast coherent nonlinear response in arrays of multipolar plasmonic resonators.**
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85. **Electrically pumped coherent surface plasmon polariton source integrated on a chip.**
D. Fedyanin, A. V. Krasavin, A. Arsenin, and A. Zayats, in *The 7th International Conference on Surface Plasmon Photonics*, paper Mo-01-P-33 (2015).
84. **Hydrodynamic model for nonlinear plasmonics: From harmonic generations to coherent supercontinuum.**
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83. **Hybrid plasmonic nanophotonics. (Invited)**
A. V. Krasavin, W. Dickson, G. A. Wurtz, and A. V. Zayats, in *E-MRS Spring Meeting 2015*, paper I-111 (2015).
82. **Comparing plasmonic waveguides: A comprehensive figure of merit.**
A. Krasavin and A. Zayats, in *OWTNM 2015*, Abstract Book, p. 27 (2015).

81. **Modelling coherent nonlinearities in nanostructured plasmonic metamaterials.**
G. Marino, P. Segovia, A. Krasavin, P. Ginzburg, N. Olivier, G. A. Wurtz, and A. V. Zayats, in *OWTNM 2015*, Abstract Book, p. 23 (2015).
80. **Fluorescence axial nanotomography with plasmonics.**
D. Richards, N. I. Cade, G. O. Fruhwirth, A. V. Krasavin, and Tony Ng, in *Faraday Discussions 2015*, paper 4908 (2015).
79. **Electrically driven coherent surface plasmon polariton source at the nanoscale.**
D. Fedyanin, A. Arsenin, A. Krasavin, and A. Zayats, in *The 4th International Topical Meeting on Nanophotonics and Metamaterial*, paper TUE4f-P-62 (2015).
78. **Nonlinear plasmonics in nonperturbative hydrodynamic description.**
P. Ginzburg, A. Krasavin, P. Segovia, G. A. Wurtz, and A. V. Zayats, in *The 4th International Topical Meeting on Nanophotonics and Metamaterial*, paper WED5f-P-47 (2015).
77. **Directional excitation of surface plasmon polaritons by vertical-cavity surface emitting lasers.**
C. McPolin, J.-S. Bouillard, D. O'Connor, A. V. Krasavin, W. Dickson, J. Justice, B. Corbett, G. A. Wurtz, and A. V. Zayats, in *Photon 14 Conference* (2014).
76. **Second harmonic generation from plasmonic metamaterials in the vicinity of epsilon-near-zero.**
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75. **Experimental demonstration of plasmonic switching via optical cavity resonances.**
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74. **Nonlinear plasmonics for nanoscale light manipulation and imaging.**
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73. **Lossless surface plasmon polariton guiding in electrically driven nanowaveguides.**
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72. **Guiding, switching and sensing with nanorod metamaterials. (Invited)**
G. A. Wurtz, W. Dickson, P. Ginzburg, A. V. Krasavin, and A. V. Zayats, in *SPIE Optics + Photonics 2014*, paper 9160-38 (2014).
71. **Plasmonic and metamaterial devices based on opto-mechanical interactions.**
P. Ginzburg, A. V. Krasavin, A. S. Shalin, P. A. Belov, Y. S. Kivshar, and A. V. Zayats, in *SPIE Optics + Photonics 2014*, paper 9160-27 (2014).
70. **Surface Nonlinearities in Plasmonics.**
A. V. Krasavin, P. Segovia, P. Ginzburg, and A. V. Zayats, in *CLEO 2014*, paper FTh4K.7 (2014).
69. **Classical and quantum opto-mechanics with plasmonics and metamaterials.**
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68. **Nonlinearities in plasmonics and metamaterials. (Invited)**
P. Ginzburg, A. Krasavin, P. Segovia, and A. V. Zayats, in *Annual International Conference "Days of Diffraction"* (2014).

67. **Nonlinear plasmonics. (Invited)**
P. Ginzburg, A. V. Krasavin, P. Segovia, G. A. Wurtz, and A. V. Zayats, in *The Nonlinear Meeting* (2014).
66. **Photonics at the nanoscale: From novel phenomena to promising applications. (Invited)**
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65. **Plasmonics and metamaterials meet opto-mechanical applications. (Invited)**
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64. **Anisotropic plasmonic metamaterials. (Invited)**
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63. **Experimental demonstration of plasmonic switching via optical cavity resonances.**
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62. **Coherent surface plasmon polariton emission from a nanodiode.**
D. Yu. Fedyanin, A. V. Krasavin, A. V. Arsenin, and A. V. Zayats, in *SPIE Photonics Europe 2014*, paper 9126-10 (2014).
61. **Quantum opto-mechanical phenomena in hyperbolic metamaterials.**
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60. **Arrays of plasmonic nanocavities for nonlinear light interactions.**
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59. **Active plasmonic circuitry.**
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58. **Nonlinear nanoplasmonics: Making use of metallic nonlinearities.**
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57. **Nanoscale nonlinear plasmonics.**
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55. **A plasmonic switch based on electrically controlled cavity resonances**
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54. **Plasmonics for the design of active nanodevices. (Invited)**
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P. Ginzburg, A. Krasavin, A. Zayats, A. Poddubny, P. Belov, and Yu. Kivshar, in *The 4th International Topical Meeting on Nanophotonics and Metamaterials*, paper FRI4f.61 (2013).
51. **Nonlinear surface plasmonics: Exploiting intrinsic metal nonlinearities.**
P. Ginzburg, A. Krasavin, and A. Zayats, in *The 4th International Topical Meeting on Nanophotonics and Metamaterials*, paper SAT3s.3 (2013).
50. **Optical computing. (Invited)**
A. V. Krasavin and A. V. Zayats, in *The Future of Computing Symposium* (2012).
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D. Yu. Fedyanin, A. V. Krasavin, A. V. Arsenin, and A. V. Zayats, in *European Optical Society Annual Meeting 2012*, paper 6147 (2012).
48. **Active plasmonics: The current challenges. (Invited)**
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G. Wurtz, A. Krasavin, and A. Zayats, in *Workshop on Metallic Nano-objects in Solid Matrix* (2012).
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G. Wurtz, A. Krasavin, and A. V. Zayats, in *SPIE Optics + Photonics 2012* (2012).
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42. **Fabrication of self-assembled gold coaxial nanorod-tube arrays for nanoscale light interactions.**
A. Murphy, Y. Sonnefraud, P. Ginzburg, A. Krasavin, S. Maier, A. Zayats, and R. Pollard, in *E-MRS Spring Meeting* (2012).
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A. V. Krasavin, A. V. Zayats, W. Dickson, J.-S. Bouillard, and G. A. Wurtz, in *Plasmata'11*, Conference Proceedings, p. 21 (2011).

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S. Randhawa, J. Renger, A. Krasavin, A. Zayats, L. Sebastien, A. Bouhelier, and R. Quidant, in *Nonlinear Optics: Materials, Fundamentals and Applications*, paper NTuA2 (2011).
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36. **Nanoscale integrated field-effect SPP modulator.**
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35. **Nanoscale Si-SPP waveguides.**
A. V. Krasavin and A. V. Zayats in *Photon 10 Conference* (2010).
34. **Novel plasmonic platform based on nanorod metamaterials. (Invited)**
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A. V. Krasavin, P. M. Bolger, W. Dickson, D. O'Connor, and A. V. Zayats, in *Plasmonics UK Meeting*, paper P8 (2010).
30. **High-density photonic integration with nanowire plasmonic waveguides. (Invited)**
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29. **Active plasmonic components for integrated circuits.**
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A. V. Krasavin, A. S. Schwanecke, M. Reichelt, T. Stroucken, S. W. Koch, and N. I. Zheludev, in *Progress In Electromagnetics Research Symposium*, Conference Proceedings, p. 231 (2005).

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