Roman Elashnikov

List of Publications by Year
in descending order

49 papers	1,165 citations	331259 21 h-index	414034 32 g-index
52 all docs	52 docs citations	52 times ranked	1547 citing authors

#	Article	IF	Citations
1	Metal-organic framework (MOF-5) coated SERS active gold gratings: A platform for the selective detection of organic contaminants in soil. Analytica Chimica Acta, 2019, 1068, 70-79.	2.6	77
2	Precise cancer detection via the combination of functionalized SERS surfaces and convolutional neural network with independent inputs. Sensors and Actuators B: Chemical, 2020, 308, 127660.	4.0	66
3	Dualâ€Action Flexible Antimicrobial Material: Switchable Selfâ€Cleaning, Antifouling, and Smart Drug Release. Advanced Functional Materials, 2019, 29, 1901880.	7.8	63
4	Temperature-responsive PLLA/PNIPAM nanofibers for switchable release. Materials Science and Engineering C, 2017, 72, 293-300.	3.8	58
5	Helicene-SPP-Based Chiral Plasmonic Hybrid Structure: Toward Direct Enantiomers SERS Discrimination. ACS Applied Materials & Interfaces, 2019, 11, 1555-1562.	4.0	54
6	Surface modification of Au and Ag plasmonic thin films via diazonium chemistry: Evaluation of structure and properties. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 516, 274-285.	2.3	53
7	Stabilization of sputtered gold and silver nanoparticles in PEG colloid solutions. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	52
8	Fast and All-Optical Hydrogen Sensor Based on Gold-Coated Optical Fiber Functionalized with Metalâ€“Organic Framework Layer. ACS Sensors, 2019, 4, 3133-3140.	4.0	46
9	Smart, Piezo-Responsive Polyvinylidenefluoride/Polymethylmethacrylate Surface with Triggerable Water/Oil Wettability and Adhesion. ACS Applied Materials & Interfaces, 2018, 10, 37461-37469.	4.0	41
10	Plasmon-Induced Water Splittingâ€”through Flexible Hybrid 2D Architecture up to Hydrogen from Seawater under NIR Light. ACS Applied Materials & Interfaces, 2020, 12, 28110-28119.	4.0	41
11	Light-activated polymethylmethacrylate nanofibers with antibacterial activity. Materials Science and Engineering C, 2016, 64, 229-235.	3.8	38
12	Porphyrinâ€‘silver nanoparticles hybrids: Synthesis, characterization and antibacterial activity. Materials Science and Engineering C, 2019, 102, 192-199.	3.8	37
13	Enantioselective SERS sensing of pseudoephedrine in blood plasma biomatrix by hierarchical mesoporous Au films coated with a homochiral MOF. Biosensors and Bioelectronics, 2021, 180, 113109.	5.3	37
14	Preparation of periodic surface structures on doped poly(methyl metacrylate) films by irradiation with KrF excimer laser. Nanoscale Research Letters, 2014, 9, 591.	3.1	28
15	Polypyrrole-Based Nanorobots Powered by Light and Glucose for Pollutant Degradation in Water. ACS Applied Materials & Interfaces, 2021, 13, 16173-16181.	4.0	28
16	Can Plasmon Change Reaction Path? Decomposition of Unsymmetrical Iodonium Salts as an Organic Probe. Journal of Physical Chemistry Letters, 2020, 11, 5770-5776.	2.1	27
17	Plasmonâ€Assisted Activation and Grafting by Iodonium Salt: Functionalization of Optical Fiber Surface. Advanced Materials Interfaces, 2018, 5, 1800725.	1.9	26
18	Plasmonâ€Polariton Induced, â€œfrom Surfaceâ€•RAFT Polymerization, as a Way toward Creation of Grafted Polymer Films with Thickness Precisely Controlled by Selfâ€Limiting Mechanism. Advanced Materials Interfaces, 2018, 5, 1801042.	1.9	25

#	Article	IF	Citations
19	Tunable release of silver nanoparticles from temperature-responsive polymer blends. Reactive and Functional Polymers, 2015, 93, 163-169.	2.0	23
20	Synthesis, Characterization, and Antimicrobial Activity of Nearâ€IR Photoactive Functionalized Gold Multibranched Nanoparticles. ChemistryOpen, 2017, 6, 254-260.	0.9	23
21	Spatially selective modification of PLLA surface: From hydrophobic to hydrophilic or to repellent. Applied Surface Science, 2017, 397, 226-234.	3.1	22
22	Physically Switchable Antimicrobial Surfaces and Coatings: General Concept and Recent Achievements. Nanomaterials, 2021, 11, 3083.	1.9	20
23	Tuning of PEDOT:PSS Properties Through Covalent Surface Modification. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 378-387.	2.4	19
24	Advanced Design of Microfluidic Chip Based on SPP-LSP Plasmonic Coupling for SERS Detection with High Sensitivity and Reliability. Journal of Physical Chemistry C, 2019, 123, 30492-30498.	1.5	19
25	Plasmon-active optical fiber functionalized by metal organic framework for pesticide detection. Talanta, 2020, 208, 120480.	2.9	19
26	Plasmon-assisted MXene grafting: tuning of surface termination and stability enhancement. 2D Materials, 2021, 8, 045037.	2.0	19
27	Sandwiched gold/PNIPAm/gold microstructures for smart plasmonics application: towards the high detection limit and Raman quantitative measurements. Analyst, The, 2017, 142, 2974-2981.	1.7	18
28	Polypyrrole-coated cellulose nanofibers: influence of orientation, coverage and electrical stimulation on SH-SY5Y behavior. Journal of Materials Chemistry B, 2019, 7, 6500-6507.	2.9	18
29	Patterning of ultrathin polymethylmethacrylate films by in-situ photodirecting of the Marangoni flow. Applied Surface Science, 2017, 394, 562-568.	3.1	17
30	Functional and Switchable Amphiphilic PMMA Surface Prepared by 3D Selective Modification. Advanced Materials Interfaces, 2018, 5, 1701182.	1.9	14
31	Longtime stability of silver-based SERS substrate in the environment and (bio)environment with variable temperature and humidity. Sensors and Actuators A: Physical, 2019, 285, 566-572.	2.0	13
32	Switchable PNIPAm/PPyNT Hydrogel for Smart Supercapacitors: External Control of Capacitance for Pulsed Energy Generation or Prolongation of Discharge Time. ACS Applied Materials & Interfaces, 2021, 13, 48030-48039.	4.0	13
33	SERS and advanced chemometrics â€“ Utilization of Siamese neural network for picomolar identification of beta-lactam antibiotics resistance gene fragment. Analytica Chimica Acta, 2022, 1192, 339373.	2.6	13
34	Hydrophilic/hydrophobic surface modification impact on colloid lithography: Schottky-like defects, dislocation, and ideal distribution. Applied Surface Science, 2018, 433, 443-448.	3.1	11
35	Multiresponsive Wettability Switching on Polymer Surface: Effect of Surface Chemistry and/or Morphology Tuning. Advanced Materials Interfaces, 2019, 6, 1801937.	1.9	11
36	Chemical modification of gold surface via UV-generated aryl radicals derived	1.9	10

#	Article	IF	Citations
37	Taking the power of plasmon-assisted chemistry on copper NPs: Preparation and application of COFs nanostructures for CO2 sensing in water. Microporous and Mesoporous Materials, 2020, 309, 110577.	2.2	10
38	Ciprofloxacin-Loaded Poly(N-isopropylacrylamide-co-acrylamide)/Polycaprolactone Nanofibers as Dual Thermo- and pH-Responsive Antibacterial Materials. ACS Applied Bio Materials, 2022, , .	2.3	10
39	Thickness and substrate dependences of phase transition, drug release and antibacterial properties of PNIPAm-co-AAc films. RSC Advances, 2015, 5, 86825-86831.	1.7	8
40	Homochiral metal-organic frameworks functionalized SERS substrate for atto-molar enantio-selective detection. Applied Materials Today, 2020, 20, 100666.	2.3	8
41	Effect of sterilization methods on electrospun cellulose acetate butyrate nanofibers for SH-SY5Y cultivation. Reactive and Functional Polymers, 2019, 143, 104339.	2.0	6
42	Vapor Annealing and Colloid Lithography: An Effective Tool To Control Spatial Resolution of Surface Modification. Langmuir, 2018, 34, 12861-12869.	1.6	5
43	Reversible wettability switching of piezo-responsive nanostructured polymer fibers by electric field. Chemical Papers, 2021, 75, 191-196.	1.0	5
44	Laser patterning of transparent polymers assisted by plasmon excitation. Soft Matter, 2018, 14, 4860-4865.	1.2	4
45	Proton exchange membrane with plasmon-active surface for enhancement of fuel cell effectivity. Nanoscale, 2020, 12, 12068-12075.	2.8	4
46	Printable Resin Modified by Grafted Silver Nanoparticles for Preparation of Antifouling Microstructures with Antibacterial Effect. Polymers, 2021, 13, 3838.	2.0	3
47	Immobilization of Gold Nanoparticles in Localized Surface Plasmon Polariton-Coupled Hot Spots via Photolytic Dimerization of Aromatic Amine Groups for SERS Detection in a Microfluidic Regime. ACS Applied Nano Materials, 2022, 5, 1836-1844.	2.4	2
48	Application of Plasmon-Induced Lithography for Creation of a Residual-Free Pattern and Simple Surface Modifications. ACS Omega, 2019, 4, 5534-5539.	1.6	1
49	COUPLED SEMICONDUCTORS AS photo- electrochemical catalyst for water splitting. , 2021, , .		0