Jakub Dostalek

List of Publications by Year
in descending order

106 papers	4,993 citations	94381 37 h-index	95218 68 g-index
111 all docs	111 docs citations	111 times ranked	5851 citing authors

#	Article	IF	Citations
1	Plasmon-Enhanced Fluorescence Biosensors: a Review. Plasmonics, 2014, 9, 781-799.	1.8	380
2	Spectral surface plasmon resonance biosensor for detection of staphylococcal enterotoxin B in milk. International Journal of Food Microbiology, 2002, 75, 61-69.	2.1	301
3	Detection of foodborne pathogens using surface plasmon resonance biosensors. Sensors and Actuators B: Chemical, 2001, 74, 100-105.	4.0	261
4	Surface plasmon resonance biosensor based on integrated optical waveguide. Sensors and Actuators B: Chemical, 2001, 76, 8-12.	4.0	250
5	Multi-analyte surface plasmon resonance biosensing. Methods, 2005, 37, 26-36.	1.9	183
6	Bacterial Pathogen Surface Plasmon Resonance Biosensor Advanced by Long Range Surface Plasmons and Magnetic Nanoparticle Assays. Analytical Chemistry, 2012, 84, 8345-8350.	3.2	171
7	Magnetic Nanoparticle-Enhanced Biosensor Based on Grating-Coupled Surface Plasmon Resonance. Analytical Chemistry, 2011, 83, 6202-6207.	3.2	155
8	Long Range Surface Plasmons for Observation of Biomolecular Binding Events at Metallic Surfaces. Plasmonics, 2007, 2, 97-106.	1.8	148
9	Thin Hydrogel Films for Optical Biosensor Applications. Membranes, 2012, 2, 40-69.	1.4	141
10	Rich information format surface plasmon resonance biosensor based on array of diffraction gratings. Sensors and Actuators B: Chemical, 2005, 107, 154-161.	4.0	139
11	Multichannel surface plasmon resonance biosensor with wavelength division multiplexing. Sensors and Actuators B: Chemical, 2005, 108, 758-764.	4.0	123
12	A novel multichannel surface plasmon resonance biosensor. Sensors and Actuators B: Chemical, 2001, 76, 403-410.	4.0	122
13	Prostate Specific Antigen Biosensor Based on Long Range Surface Plasmon-Enhanced Fluorescence Spectroscopy and Dextran Hydrogel Binding Matrix. Analytical Chemistry, 2009, 81, 9625-9632.	3.2	116
14	Long-Range Surface Plasmon-Enhanced Fluorescence Spectroscopy Biosensor for Ultrasensitive Detection of E. coli O157:H7. Analytical Chemistry, 2011, 83, 674-677.	3.2	115
15	Biosensors based on surface plasmon-enhanced fluorescence spectroscopy (Review). Biointerphases, 2008, 3, FD12-FD22.	0.6	100
16	Long range surface plasmon-enhanced fluorescence spectroscopy for the detection of aflatoxin M1 in milk. Biosensors and Bioelectronics, 2009, 24, 2264-2267.	5.3	91
17	Lipopolysaccharides detection on a grating-coupled surface plasmon resonance smartphone biosensor. Biosensors and Bioelectronics, 2018, 99, 312-317.	5.3	91
18	Biosensor based on hydrogel optical waveguide spectroscopy. Biosensors and Bioelectronics, 2010, 25, 1663-1668.	5.3	86

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19	Active Control of SPR by Thermoresponsive Hydrogels for Biosensor Applications. Journal of Physical Chemistry C, 2013, 117, 11705-11712.	1.5	78
20	Bloch surface wave-enhanced fluorescence biosensor. Biosensors and Bioelectronics, 2013, 43, 108-114.	5.3	77
21	Multiple surface plasmon spectroscopy for study of biomolecular systems. Sensors and Actuators B: Chemical, 2006, 113, 774-781.	4.0	76
22	Tunable laser interference lithography preparation of plasmonic nanoparticle arrays tailored for SERS. Nanoscale, 2018, 10, 10268-10276.	2.8	72
23	Surface plasmon resonance sensor based on an array of diffraction gratings for highly parallelized observation of biomolecular interactions. Sensors and Actuators B: Chemical, 2008, 129, 303-310.	4.0	71
24	Nanobiotechnology advanced antifouling surfaces for the continuous electrochemical monitoring of glucose in whole blood using a lab-on-a-chip. Lab on A Chip, 2013, 13, 1780.	3.1	71
25	Sensitive and rapid detection of aflatoxin M1 in milk utilizing enhanced SPR and p(HEMA) brushes. Biosensors and Bioelectronics, 2016, 81, 159-165.	5.3	66
26	Fast and sensitive detection of ochratoxin A in red wine by nanoparticle-enhanced SPR. Analytica Chimica Acta, 2016, 937, 143-150.	2.6	64
27	Hepatitis B plasmonic biosensor for the analysis of clinical serum samples. Biosensors and Bioelectronics, 2016, 85, 272-279.	5.3	63
28	Multichannel SPR biosensor for detection of endocrine-disrupting compounds. Analytical and Bioanalytical Chemistry, 2007, 389, 1841-1847.	1.9	56
29	Compact surface plasmon-enhanced fluorescence biochip. Optics Express, 2013, 21, 10121.	1.7	54
30	Biosensor based on hydrogel optical waveguide spectroscopy for the detection of 17Î²-estradiol. Talanta, 2013, 104, 149-154.	2.9	53
31	Pushing the Boundaries of Interfacial Sensitivity in Graphene FET Sensors: Polyelectrolyte Multilayers Strongly Increase the Debye Screening Length. Journal of Physical Chemistry C, 2018, 122, 10181-10188.	1.5	51
32	Plasmonic nanomaterials with responsive polymer hydrogels for sensing and actuation. Chemical Society Reviews, 2022, 51, 3926-3963.	18.7	48
33	Long range surface plasmon and hydrogel optical waveguide field-enhanced fluorescence biosensor with 3D hydrogel binding matrix: On the role of diffusion mass transfer. Biosensors and Bioelectronics, 2010, 26, 1425-1431.	5.3	45
34	Magnetic nanoparticle-enhanced surface plasmon resonance biosensor for extracellular vesicle analysis. Analyst, The, 2017, 142, 3913-3921.	1.7	45
35	Plasmonic Hepatitis B Biosensor for the Analysis of Clinical Saliva. Analytical Chemistry, 2017, 89, 2972-2977.	3.2	42
36	Optical Waveguide Spectroscopy for the Investigation of Proteinâ€Functionalized Hydrogel Films. Macromolecular Rapid Communications, 2009, 30, 872-877.	2.0	40

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37	Compact Grating-Coupled Biosensor for the Analysis of Thrombin. ACS Sensors, 2019, 4, 2109-2116.	4.0	38
38	Tuneable and robust long range surface plasmon resonance for biosensing applications. Optical Materials, 2013, 35, 2507-2513.	1.7	36
39	Surface plasmon-coupled emission on plasmonic Bragg gratings. Optics Express, 2012, 20, 14042.	1.7	35
40	Collective localized surface plasmons for high performance fluorescence biosensing. Optics Express, 2013, 21, 20470.	1.7	34
41	Dual Monitoring of Surface Reactions in Real Time by Combined Surface-Plasmon Resonance and Field-Effect Transistor Interrogation. Journal of the American Chemical Society, 2020, 142, 11709-11716.	6.6	33
42	Surface plasmon resonance-based aptasensor for direct monitoring of thrombin in a minimally processed human blood. Sensors and Actuators B: Chemical, 2020, 320, 128380.	4.0	32
43	Directional fluorescence emission co-enhanced by localized and propagating surface plasmons for biosensing. Nanoscale, 2016, 8, 8008-8016.	2.8	31
44	Multidiffractive Broadband Plasmonic Absorber. Advanced Optical Materials, 2016, 4, 435-443.	3.6	30
45	Biosensor platform for parallel surface plasmon-enhanced epifluorescence and surface plasmon resonance detection. Sensors and Actuators B: Chemical, 2018, 257, 594-601.	4.0	30
46	Bicyclic RGD Peptides with Exquisite Selectivity for the Integrin Î±_vÎ²₃ Receptor Using a â€œRandom Designâ€•Approach. ACS Combinatorial Science, 2019, 21, 198-206.	3.8	28
47	Surface interactions of oxidized cellulose with fibrin(ogen) and blood platelets. Sensors and Actuators B: Chemical, 2003, 90, 243-249.	4.0	27
48	Tunable Plasmonic Nanohole Arrays Actuated by a Thermoresponsive Hydrogel Cushion. Journal of Physical Chemistry C, 2016, 120, 561-568.	1.5	25
49	Diffusion and Permeation of Labeled IgG in Grafted Hydrogels. Macromolecules, 2017, 50, 4770-4779.	2.2	25
50	Actuated plasmonic nanohole arrays for sensing and optical spectroscopy applications. Nanoscale, 2020, 12, 9756-9768.	2.8	23
51	Long range surface plasmon-coupled fluorescence emission for biosensor applications. Optics Express, 2011, 19, 11090.	1.7	21
52	Shedding Light on the Dark Corners of Metalâ€“Organic Framework Thin Films: Growth and Structural Stability of ZIF-8 Layers Probed by Optical Waveguide Spectroscopy. Journal of Physical Chemistry A, 2019, 123, 1100-1109.	1.1	21
53	Optimization of layer structure supporting long range surface plasmons for surface plasmon-enhanced fluorescence spectroscopy biosensors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 66-72.	0.6	20
54	UV-Laser Interference Lithography for Local Functionalization of Plasmonic Nanostructures with Responsive Hydrogel. Journal of Physical Chemistry C, 2020, 124, 3297-3305.	1.5	20

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55	Functionalized Terpolymer-Brush-Based Biointerface with Improved Antifouling Properties for Ultra-Sensitive Direct Detection of Virus in Crude Clinical Samples. ACS Applied Materials & Interfaces, 2021, 13, 60612-60624.	4.0	19
56	Molecularly controlled functional architectures. Materials Today, 2010, 13, 46-55.	8.3	18
57	Plasmonic amplification for bioassays with epi-fluorescence readout. Optics Express, 2014, 22, 32026.	1.7	18
58	Plasmon Field-Enhanced Fluorescence Energy Transfer for Hairpin Aptamer Assay Readout. ACS Sensors, 2017, 2, 916-923.	4.0	18
59	Actively Tunable Collective Localized Surface Plasmons by Responsive Hydrogel Membrane. Advanced Optical Materials, 2019, 7, 1900342.	3.6	18
60	Diffraction grating-coupled surface plasmon resonance sensor based on spectroscopy of long-range and short-range surface plasmons. , 2007, , .		17
61	Multiresonant plasmonic nanostructure for ultrasensitive fluorescence biosensing. Nanophotonics, 2020, 9, 3673-3685.	2.9	17
62	Field-Effect Transistor with a Plasmonic Fiber Optic Gate Electrode as a Multivariable Biosensor Device. ACS Sensors, 2022, 7, 504-512.	4.0	17
63	SPR bacterial pathogen biosensor: The importance of fluidic conditions and probing depth. Talanta, 2014, 122, 166-171.	2.9	16
64	Hydrogel-Terminated Photonic Crystal for Label-Free Detection of Angiopoietin-1. Journal of Lightwave Technology, 2016, 34, 3641-3645.	2.7	16
65	A surface plasmon field-enhanced fluorescence reversible split aptamer biosensor. Analyst, The, 2017, 142, 2995-3001.	1.7	16
66	Novel approach to surface plasmon resonance multichannel sensing. , 2001, 4416, 86.		14
67	Spectroscopy of Bragg-scattered surface plasmons for characterization of thin biomolecular films. Optics Letters, 2007, 32, 2903.	1.7	14
68	Surface plasmon modes of nanomesh-on-mirror nanocavities prepared by nanosphere lithography. Nanoscale, 2018, 10, 17983-17989.	2.8	14
69	Responsive Hydrogel Binding Matrix for Dual Signal Amplification in Fluorescence Affinity Biosensors and Peptide Microarrays. ACS Applied Materials & Interfaces, 2021, 13, 27645-27655.	4.0	14
70	High-Affinity Î±₅Î²₁-Integrin-Selective Bicyclic RGD Peptides Identified via Screening of Designed Random Libraries. ACS Combinatorial Science, 2019, 21, 598-607.	3.8	13
71	NEW CONCEPTS WITH SURFACE PLASMONS AND NANO-BIOINTERFACES. Journal of Nonlinear Optical Physics and Materials, 2008, 17, 121-129.	1.1	12
72	Nanostructured as-deposited indium tin oxide thin films for broadband antireflection and light trapping. Nanotechnology, 2017, 28, 325201.	1.3	12

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73	Coupled long range surface plasmons for the investigation of thin films and interfaces. Sensors and Actuators B: Chemical, 2009, 139, 9-12.	4.0	11
74	Molecularly Imprinted Polymer Waveguides for Direct Optical Detection of Lowâ€Molecularâ€Weight Analytes. Macromolecular Chemistry and Physics, 2014, 215, 2295-2304.	1.1	11
75	Free-standing hydrogel-particle composite membrane with dynamically controlled permeability. Biointerphases, 2017, 12, 051002.	0.6	11
76	SPR Biosensors for Detection of Biological and Chemical Analytes. Springer Series on Chemical Sensors and Biosensors, 2006, , 177-190.	0.5	9
77	Optical Waveguideâ€Enhanced Diffraction for Observation of Responsive Hydrogel Nanostructures. Macromolecular Chemistry and Physics, 2017, 218, 1600400.	1.1	9
78	Plasmonically amplified bioassay â€“ Total internal reflection fluorescence vs. epifluorescence geometry. Talanta, 2016, 156-157, 225-231.	2.9	8
79	Reversibly tunable plasmonic bandgap by responsive hydrogel grating. Optics Express, 2016, 24, 2457.	1.7	8
80	Thin-Film Polyisocyanide-Based Hydrogels for Affinity Biosensors. Journal of Physical Chemistry C, 2021, 125, 12960-12967.	1.5	8
81	Biosensor platform based on surface plasmon-enhanced fluorescence spectroscopy and responsive hydrogel binding matrix. Proceedings of SPIE, 2009, , .	0.8	7
82	Plasmonic Properties of Gold Nanostructures on Gold Film. Plasmonics, 2020, 15, 1653-1660.	1.8	7
83	Bragg-Scattered Surface Plasmon Microscopy: Theoretical Study. Plasmonics, 2012, 7, 293-299.	1.8	6
84	Development of a specific troponin I detection system with enhanced immune sensitivity using a single monoclonal antibody. Royal Society Open Science, 2020, 7, 200871.	1.1	6
85	Investigation of optical fiber-tip probes for common and ultrafast SERS. New Journal of Physics, 2020, 22, 033027.	1.2	6
86	Magnetic nanoparticle-enhanced SPR biosensor. Procedia Engineering, 2010, 5, 1017-1020.	1.2	5
87	Rapid Actuation of Thermo-Responsive Polymer Networks: Investigation of the Transition Kinetics. Journal of Physical Chemistry B, 2022, 126, 3170-3179.	1.2	5
88	SPR sensor based on a bi-diffractive grating. , 2007, , .		4
89	Plasmonics. , 2012, , 647-659.		4
90	In Situ Monitoring of Rolling Circle Amplification on a Solid Support by Surface Plasmon Resonance and Optical Waveguide Spectroscopy. ACS Applied Materials & Interfaces, 2021, 13, 32352-32362.	4.0	4

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91	Microfluidic Platform for Multiplexed Cell Sampling and Time-Resolved SPR-Based Cytokine Sensing. IFMBE Proceedings, 2015, , 785-788.	0.2	4
92	Multi-diffractive grating for surface plasmon biosensors with direct back-side excitation. Optics Express, 2020, 28, 39770.	1.7	4
93	Reference-compensated surface plasmon resonance biosensor for detection of foodborne pathogens. , 2001, , .		3
94	Plasmonic biosensors relying on biomolecular conformational changes: Case of odorant binding proteins. Methods in Enzymology, 2020, 642, 469-493.	0.4	3
95	State of the Art of Chemosensors in a Biomedical Context. Chemosensors, 2022, 10, 199.	1.8	3
96	Long range surface plasmon resonance bacterial pathogen biosensor with magnetic nanoparticle assay. , 2011, , .		2
97	Long range surface plasmon-coupled fluorescence emission for biosensor applications. , 2011, , .		1
98	Plasmonically amplified fluorescence bioassay with microarray format. , 2015, , .		1
99	Plasmonic Exosome Biosensors for Medical Diagnostics. Progress in Optical Science and Photonics, 2016, , 249-272.	0.3	1
100	Tutorial Review: Surface Plasmon Resonance-Based Biosensors. , 0, , 29-53.		1
101	Plasmonic biosensor schemes with thermo-responsive hydrogel binding matrix. , 2011, , .		0
102	UV-SPR biosensor for biomolecular interaction studies. , 2017, , .		0
103	Plasmonic Amplification for Fluorescence Bioassays Utilizing Propagating Surface Plasmons. , 2015, , 1-11.		0
104	Plasmonic Amplification for Fluorescence Bioassays Utilizing Propagating Surface Plasmons. , 2016, , 3277-3286.		0
105	Plasmonically enhanced fluorescence biosensors actuated by responsive hydrogels. , 2018, , .		0
106	Long-Range Surface Plasmon Enhanced Fluorescence Spectroscopy as a Platform for Biosensors. , 0, , 447-461.		0