Jakub Dostalek

List of Publications by Year in Descending Order

100 papers	3,956 citations	33 h-index	61 g-index
111 ext. papers	4,489 ext. citations	6.6 avg, IF	5.45 L-index

#	Paper	IF	Citations
100	State of the Art of Chemosensors in a Biomedical Context. *Chemosensors*, **2022**, 10, 199	4	1
99	Thin-Film Polyisocyanide-Based Hydrogels for Affinity Biosensors. *Journal of Physical Chemistry C*, **2021**, 125, 12960-12967	3.8	1
98	Responsive Hydrogel Binding Matrix for Dual Signal Amplification in Fluorescence Affinity Biosensors and Peptide Microarrays. *ACS Applied Materials & Interfaces*, **2021**, 13, 27645-27655	9.5	2
97	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	9.5	1
96	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	9.5	3
95	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	16.4	15
94	Surface plasmon resonance-based aptasensor for direct monitoring of thrombin in a minimally processed human blood. *Sensors and Actuators B: Chemical*, **2020**, 320, 128380	8.5	15
93	Plasmonic biosensors relying on biomolecular conformational changes: Case of odorant binding proteins. *Methods in Enzymology*, **2020**, 642, 469-493	1.7	2
92	Investigation of optical fiber-tip probes for common and ultrafast SERS. *New Journal of Physics*, **2020**, 22, 033027	2.9	3
91	Actuated plasmonic nanohole arrays for sensing and optical spectroscopy applications. *Nanoscale*, **2020**, 12, 9756-9768	7.7	11
90	Multiresonant plasmonic nanostructure for ultrasensitive fluorescence biosensing. *Nanophotonics*, **2020**, 9, 3673-3685	6.3	9
89	Multi-diffractive grating for surface plasmon biosensors with direct back-side excitation. *Optics Express*, **2020**, 28, 39770-39780	3.3	1
88	Plasmonic Properties of Gold Nanostructures on Gold Film. *Plasmonics*, **2020**, 15, 1653-1660	2.4	4
87	UV-Laser Interference Lithography for Local Functionalization of Plasmonic Nanostructures with Responsive Hydrogel. *Journal of Physical Chemistry C*, **2020**, 124, 3297-3305	3.8	14
86	Development of a specific troponin I detection system with enhanced immune sensitivity using a single monoclonal antibody. *Royal Society Open Science*, **2020**, 7, 200871	3.3	4
85	Actively Tunable Collective Localized Surface Plasmons by Responsive Hydrogel Membrane. *Advanced Optical Materials*, **2019**, 7, 1900342	8.1	11
84	Compact Grating-Coupled Biosensor for the Analysis of Thrombin. *ACS Sensors*, **2019**, 4, 2109-2116	9.2	24

83	High-Affinity Integrin-Selective Bicyclic RGD Peptides Identified via Screening of Designed Random Libraries. *ACS Combinatorial Science*, **2019**, 21, 598-607	3.9	9
82	Shedding Light on the Dark Corners of Metal-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	2.8	15
81	Bicyclic RGD Peptides with Exquisite Selectivity for the Integrin Receptor Using a "Random Design" Approach. *ACS Combinatorial Science*, **2019**, 21, 198-206	3.9	23
80	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	3.8	30
79	Lipopolysaccharides detection on a grating-coupled surface plasmon resonance smartphone biosensor. *Biosensors and Bioelectronics*, **2018**, 99, 312-317	11.8	66
78	Biosensor platform for parallel surface plasmon-enhanced epifluorescence and surface plasmon resonance detection. *Sensors and Actuators B: Chemical*, **2018**, 257, 594-601	8.5	26
77	Surface plasmon modes of nanomesh-on-mirror nanocavities prepared by nanosphere lithography. *Nanoscale*, **2018**, 10, 17983-17989	7.7	11
76	Tunable laser interference lithography preparation of plasmonic nanoparticle arrays tailored for SERS. *Nanoscale*, **2018**, 10, 10268-10276	7.7	55
75	Optical Waveguide-Enhanced Diffraction for Observation of Responsive Hydrogel Nanostructures. *Macromolecular Chemistry and Physics*, **2017**, 218, 1600400	2.6	7
74	Plasmonic Hepatitis B Biosensor for the Analysis of Clinical Saliva. *Analytical Chemistry*, **2017**, 89, 2972-2977	7.8	33
73	Diffusion and Permeation of Labeled IgG in Grafted Hydrogels. *Macromolecules*, **2017**, 50, 4770-4779	5.5	18
72	Plasmon Field-Enhanced Fluorescence Energy Transfer for Hairpin Aptamer Assay Readout. *ACS Sensors*, **2017**, 2, 916-923	9.2	14
71	Fluorescence Biosensors Utilizing Grating-Assisted Plasmonic Amplification **2017**, 227-240		
70	Magnetic nanoparticle-enhanced surface plasmon resonance biosensor for extracellular vesicle analysis. *Analyst, The*, **2017**, 142, 3913-3921	5	34
69	Responsive Polymer Networks and Brushes for Active Plasmonics **2017**, 687-707		
68	Free-standing hydrogel-particle composite membrane with dynamically controlled permeability. *Biointerphases*, **2017**, 12, 051002	1.8	6
67	A surface plasmon field-enhanced fluorescence reversible split aptamer biosensor. *Analyst, The*, **2017**, 142, 2995-3001	5	15
66	Nanostructured as-deposited indium tin oxide thin films for broadband antireflection and light trapping. *Nanotechnology*, **2017**, 28, 325201	3.4	7

65	Plasmonic Exosome Biosensors for Medical Diagnostics. *Progress in Optical Science and Photonics*, **2016**, 249-272	0.3	
64	Tunable Plasmonic Nanohole Arrays Actuated by a Thermoresponsive Hydrogel Cushion. *Journal of Physical Chemistry C*, **2016**, 120, 561-568	3.8	24
63	Hydrogel-Terminated Photonic Crystal for Label-Free Detection of Angiopoietin-1. *Journal of Lightwave Technology*, **2016**, 34, 3641-3645	4	12
62	Directional fluorescence emission co-enhanced by localized and propagating surface plasmons for biosensing. *Nanoscale*, **2016**, 8, 8008-16	7.7	24
61	Sensitive and rapid detection of aflatoxin M1 in milk utilizing enhanced SPR and p(HEMA) brushes. *Biosensors and Bioelectronics*, **2016**, 81, 159-165	11.8	54
60	Multidiffractive Broadband Plasmonic Absorber. *Advanced Optical Materials*, **2016**, 4, 435-443	8.1	22
59	Plasmonically amplified bioassay - Total internal reflection fluorescence vs. epifluorescence geometry. *Talanta*, **2016**, 156-157, 225-231	6.2	6
58	Hepatitis B plasmonic biosensor for the analysis of clinical serum samples. *Biosensors and Bioelectronics*, **2016**, 85, 272-279	11.8	49
57	Reversibly tunable plasmonic bandgap by responsive hydrogel grating. *Optics Express*, **2016**, 24, 2457-65	3.3	5
56	Fast and sensitive detection of ochratoxin A in red wine by nanoparticle-enhanced SPR. *Analytica Chimica Acta*, **2016**, 937, 143-50	6.6	51
55	Plasmonically amplified fluorescence bioassay with microarray format **2015**,		1
54	Biofunctional Surfaces **2015**, 341-362		
53	Microfluidic Platform for Multiplexed Cell Sampling and Time-Resolved SPR-Based Cytokine Sensing. *IFMBE Proceedings*, **2015**, 785-788	0.2	3
52	Plasmon-Enhanced Fluorescence Biosensors: a Review. *Plasmonics*, **2014**, 9, 781-799	2.4	287
51	SPR bacterial pathogen biosensor: the importance of fluidic conditions and probing depth. *Talanta*, **2014**, 122, 166-71	6.2	12
50	Plasmonic amplification for bioassays with epi-fluorescence readout. *Optics Express*, **2014**, 22, 32026-38	3.3	14
49	Molecularly Imprinted Polymer Waveguides for Direct Optical Detection of Low-Molecular-Weight Analytes. *Macromolecular Chemistry and Physics*, **2014**, 215, 2295-2304	2.6	8
48	Bloch surface wave-enhanced fluorescence biosensor. *Biosensors and Bioelectronics*, **2013**, 43, 108-14	11.8	66

47	Tuneable and robust long range surface plasmon resonance for biosensing applications. *Optical Materials*, **2013**, 35, 2507-2513	3.3	32
46	Biosensor based on hydrogel optical waveguide spectroscopy for the detection of 17β-estradiol. *Talanta*, **2013**, 104, 149-54	6.2	44
45	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, 1780-9	7.2	63
44	Active Control of SPR by Thermoresponsive Hydrogels for Biosensor Applications. *Journal of Physical Chemistry C*, **2013**, 117, 11705-11712	3.8	61
43	Compact surface plasmon-enhanced fluorescence biochip. *Optics Express*, **2013**, 21, 10121-32	3.3	46
42	Collective localized surface plasmons for high performance fluorescence biosensing. *Optics Express*, **2013**, 21, 20470-83	3.3	29
41	Thin hydrogel films for optical biosensor applications. *Membranes*, **2012**, 2, 40-69	3.8	117
40	Plasmonics **2012**, 647-659		3
39	Bacterial pathogen surface plasmon resonance biosensor advanced by long range surface plasmons and magnetic nanoparticle assays. *Analytical Chemistry*, **2012**, 84, 8345-50	7.8	138
38	Bragg-Scattered Surface Plasmon Microscopy: Theoretical Study. *Plasmonics*, **2012**, 7, 293-299	2.4	6
37	Surface plasmon-coupled emission on plasmonic Bragg gratings. *Optics Express*, **2012**, 20, 14042-53	3.3	35
36	Long range surface plasmon-coupled fluorescence emission for biosensor applications. *Optics Express*, **2011**, 19, 11090-9	3.3	19
35	Magnetic nanoparticle-enhanced biosensor based on grating-coupled surface plasmon resonance. *Analytical Chemistry*, **2011**, 83, 6202-7	7.8	134
34	Long range surface plasmon resonance bacterial pathogen biosensor with magnetic nanoparticle assay **2011**,		1
33	Long-range surface plasmon-enhanced fluorescence spectroscopy biosensor for ultrasensitive detection of E. coli O157:H7. *Analytical Chemistry*, **2011**, 83, 674-7	7.8	102
32	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	1.3	17
31	Magnetic nanoparticle-enhanced SPR biosensor. *Procedia Engineering*, **2010**, 5, 1017-1020		5
30	Biosensor based on hydrogel optical waveguide spectroscopy. *Biosensors and Bioelectronics*, **2010**, 25, 1663-8	11.8	69

29	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, 1425-31	11.8	36
28	Molecularly controlled functional architectures. *Materials Today*, **2010**, 13, 46-55	21.8	17
27	Biosensor platform based on surface plasmon-enhanced fluorescence spectroscopy and responsive hydrogel binding matrix **2009**,		5
26	Optical waveguide spectroscopy for the investigation of protein-functionalized hydrogel films. *Macromolecular Rapid Communications*, **2009**, 30, 872-7	4.8	32
25	Coupled long range surface plasmons for the investigation of thin films and interfaces. *Sensors and Actuators B: Chemical*, **2009**, 139, 9-12	8.5	11
24	Long range surface plasmon-enhanced fluorescence spectroscopy for the detection of aflatoxin M1 in milk. *Biosensors and Bioelectronics*, **2009**, 24, 2264-7	11.8	77
23	Prostate specific antigen biosensor based on long range surface plasmon-enhanced fluorescence spectroscopy and dextran hydrogel binding matrix. *Analytical Chemistry*, **2009**, 81, 9625-32	7.8	101
22	Biosensors based on surface plasmon-enhanced fluorescence spectroscopy. *Biointerphases*, **2008**, 3, FD12-22	2.8	91
21	NEW CONCEPTS WITH SURFACE PLASMONS AND NANO-BIOINTERFACES. *Journal of Nonlinear Optical Physics and Materials*, **2008**, 17, 121-129	0.8	11
20	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	8.5	59
19	Multichannel SPR biosensor for detection of endocrine-disrupting compounds. *Analytical and Bioanalytical Chemistry*, **2007**, 389, 1841-7	4.4	45
18	Long Range Surface Plasmons for Observation of Biomolecular Binding Events at Metallic Surfaces. *Plasmonics*, **2007**, 2, 97-106	2.4	125
17	SPR sensor based on a bi-diffractive grating **2007**,		4
16	Spectroscopy of Bragg-scattered surface plasmons for characterization of thin biomolecular films. *Optics Letters*, **2007**, 32, 2903-5	3	13
15	Diffraction grating-coupled surface plasmon resonance sensor based on spectroscopy of long-range and short-range surface plasmons **2007**,		15
14	SPR Biosensors for Detection of Biological and Chemical Analytes. *Springer Series on Chemical Sensors and Biosensors*, **2006**, 177-190	2	8
13	Multiple surface plasmon spectroscopy for study of biomolecular systems. *Sensors and Actuators B: Chemical*, **2006**, 113, 774-781	8.5	57
12	Multi-analyte surface plasmon resonance biosensing. *Methods*, **2005**, 37, 26-36	4.6	162

11	Rich information format surface plasmon resonance biosensor based on array of diffraction gratings. *Sensors and Actuators B: Chemical*, **2005**, 107, 154-161	8.5	117
10	Multichannel surface plasmon resonance biosensor with wavelength division multiplexing. *Sensors and Actuators B: Chemical*, **2005**, 108, 758-764	8.5	98
9	Surface interactions of oxidized cellulose with fibrin(ogen) and blood platelets. *Sensors and Actuators B: Chemical*, **2003**, 90, 243-249	8.5	24
8	Spectral surface plasmon resonance biosensor for detection of staphylococcal enterotoxin B in milk. *International Journal of Food Microbiology*, **2002**, 75, 61-9	5.8	261
7	Reference-compensated surface plasmon resonance biosensor for detection of foodborne pathogens **2001**,		1
6	Novel approach to surface plasmon resonance multichannel sensing **2001**, 4416, 86		11
5	Detection of foodborne pathogens using surface plasmon resonance biosensors. *Sensors and Actuators B: Chemical*, **2001**, 74, 100-105	8.5	223
4	A novel multichannel surface plasmon resonance biosensor. *Sensors and Actuators B: Chemical*, **2001**, 76, 403-410	8.5	101
3	Surface plasmon resonance biosensor based on integrated optical waveguide. *Sensors and Actuators B: Chemical*, **2001**, 76, 8-12	8.5	192
2	Tutorial Review: Surface Plasmon Resonance-Based Biosensors29-53		0
1	Long-Range Surface Plasmon Enhanced Fluorescence Spectroscopy as a Platform for Biosensors447-461		