Jean-Francois Masson

List of Publications by Citations

104 papers	3,626 citations	34 h-index	56 g-index
124 ext. papers	4,448 ext. citations	6.5 avg, IF	6.31 L-index

#	Paper	IF	Citations
104	Surface Plasmon Resonance Clinical Biosensors for Medical Diagnostics. *ACS Sensors*, **2017**, 2, 16-30	9.2	340
103	Deep learning and artificial intelligence methods for Raman and surface-enhanced Raman scattering. *TrAC - Trends in Analytical Chemistry*, **2020**, 124, 115796	14.6	134
102	Modern surface plasmon resonance for bioanalytics and biophysics. *Physical Chemistry Chemical Physics*, **2013**, 15, 11190-216	3.6	130
101	Nanohole arrays in chemical analysis: manufacturing methods and applications. *Analyst, The*, **2010**, 135, 1483-9	5	114
100	Miniature multi-channel SPR instrument for methotrexate monitoring in clinical samples. *Biosensors and Bioelectronics*, **2015**, 64, 664-70	11.8	92
99	SPR Biosensing in crude serum using ultralow fouling binary patterned peptide SAM. *Analytical Chemistry*, **2010**, 82, 3699-706	7.8	91
98	Dynamic-SERS Optophysiology: A Nanosensor for Monitoring Cell Secretion Events. *Nano Letters*, **2016**, 16, 3866-71	11.5	91
97	Quantification of cytokines involved in wound healing using surface plasmon resonance. *Analytical Chemistry*, **2005**, 77, 7016-23	7.8	90
96	Quantitative measurement of cardiac markers in undiluted serum. *Analytical Chemistry*, **2007**, 79, 612-9	7.8	88
95	Fiber-optic surface plasmon resonance glucose sensor enhanced with phenylboronic acid modified Au nanoparticles. *Biosensors and Bioelectronics*, **2018**, 117, 637-643	11.8	79
94	Advances in surface plasmon resonance sensing with nanoparticles and thin films: nanomaterials, surface chemistry, and hybrid plasmonic techniques. *Analytical Chemistry*, **2011**, 83, 8057-62	7.8	79
93	Tuning the 3D plasmon field of nanohole arrays. *Nanoscale*, **2013**, 5, 12399-408	7.7	74
92	High-resolution surface plasmon resonance sensors based on a dove prism. *Talanta*, **2009**, 77, 1680-7	6.2	74
91	A CD36 ectodomain mediates insect pheromone detection via a putative tunnelling mechanism. *Nature Communications*, **2016**, 7, 11866	17.4	73
90	Polymer-Templated Gold Nanoparticles on Optical Fibers for Enhanced-Sensitivity Localized Surface Plasmon Resonance Biosensors. *ACS Sensors*, **2019**, 4, 613-622	9.2	64
89	Optical Properties of Au, Ag, and Bimetallic Au on Ag Nanohole Arrays. *Journal of Physical Chemistry C*, **2010**, 114, 8268-8275	3.8	64
88	Biocompatible polymers for antibody support on gold surfaces. *Talanta*, **2005**, 67, 918-25	6.2	63

87	Mercaptopyridine-Functionalized Gold Nanoparticles for Fiber-Optic Surface Plasmon Resonance Hg Sensing. *ACS Sensors*, **2019**, 4, 704-710	9.2	61
86	Reduction of nonspecific protein binding on surface plasmon resonance biosensors. *Analytical and Bioanalytical Chemistry*, **2006**, 386, 1951-9	4.4	60
85	Monolayers of 3-mercaptopropyl-amino acid to reduce the nonspecific adsorption of serum proteins on the surface of biosensors. *Langmuir*, **2008**, 24, 12085-91	4	59
84	Biosensors and nanobiosensors for therapeutic drug and response monitoring. *Analyst, The*, **2016**, 141, 429-49	5	57
83	Portable and field-deployed surface plasmon resonance and plasmonic sensors. *Analyst, The*, **2020**, 145, 3776-3800	5	56
82	Propagating surface plasmon resonance on microhole arrays. *Analytical Chemistry*, **2010**, 82, 3780-7	7.8	53
81	Sodium-Doped Gold-Assisted Laser Desorption Ionization for Enhanced Imaging Mass Spectrometry of Triacylglycerols from Thin Tissue Sections. *Analytical Chemistry*, **2016**, 88, 6018-25	7.8	53
80	Machine-Learning-Driven Surface-Enhanced Raman Scattering Optophysiology Reveals Multiplexed Metabolite Gradients Near Cells. *ACS Nano*, **2019**, 13, 1403-1411	16.7	52
79	Peptide self-assembled monolayers for label-free and unamplified surface plasmon resonance biosensing in crude cell lysate. *Analytical Chemistry*, **2009**, 81, 6779-88	7.8	52
78	Assessing the Location of Surface Plasmons Over Nanotriangle and Nanohole Arrays of Different Size and Periodicity. *Journal of Physical Chemistry C*, **2012**, 116, 6884-6892	3.8	47
77	Boronic Acid Functionalized Au Nanoparticles for Selective MicroRNA Signal Amplification in Fiber-Optic Surface Plasmon Resonance Sensing System. *ACS Sensors*, **2018**, 3, 929-935	9.2	43
76	Nanostructured substrates for portable and miniature SPR biosensors. *Analytical and Bioanalytical Chemistry*, **2012**, 403, 1477-84	4.4	41
75	EOT or Kretschmann configuration? Comparative study of the plasmonic modes in gold nanohole arrays. *Analyst, The*, **2012**, 137, 4162-70	5	40
74	Modified peptide monolayer binding His-tagged biomolecules for small ligand screening with SPR biosensors. *Analyst, The*, **2011**, 136, 3142-8	5	39
73	Analytical and physical optimization of nanohole-array sensors prepared by modified nanosphere lithography. *Analyst, The*, **2008**, 133, 1714-21	5	37
72	Dynamic SERS nanosensor for neurotransmitter sensing near neurons. *Faraday Discussions*, **2017**, 205, 387-407	3.6	35
71	96-Well Plasmonic Sensing with Nanohole Arrays. *ACS Sensors*, **2016**, 1, 287-294	9.2	35
70	Single chip SPR and fluorescent ELISA assay of prostate specific antigen. *Lab on A Chip*, **2015**, 15, 4433-40	7.2	34

69	Plasmonic nanopipette biosensor. *Analytical Chemistry*, **2014**, 86, 8998-9005	7.8	33
68	High throughput LSPR and SERS analysis of aminoglycoside antibiotics. *Analyst, The*, **2016**, 141, 5120-6	5	33
67	Surface-Enhanced Raman Spectroscopy Amplification with Film over Etched Nanospheres. *Journal of Physical Chemistry C*, **2010**, 114, 22406-22412	3.8	32
66	Monitoring methotrexate in clinical samples from cancer patients during chemotherapy with a LSPR-based competitive sensor. *Analyst, The*, **2012**, 137, 4742-50	5	31
65	Preparation of analyte-sensitive polymeric supports for biochemical sensors. *Talanta*, **2004**, 64, 716-25	6.2	30
64	Angle-dependent resonance of localized and propagating surface plasmons in microhole arrays for enhanced biosensing. *Analytical and Bioanalytical Chemistry*, **2012**, 404, 2859-68	4.4	29
63	Plasmonic sensors for the competitive detection of testosterone. *Analyst, The*, **2015**, 140, 5105-11	5	28
62	Imidazolium-based ionic liquid surfaces for biosensing. *Analytical Chemistry*, **2013**, 85, 5770-7	7.8	28
61	Fiber-optic surface plasmon resonance sensors in the near-infrared spectral region. *Applied Spectroscopy*, **2006**, 60, 1241-6	3.1	28
60	Liquid crystal filled surface plasmon resonance thermometer. *Optics Express*, **2016**, 24, 10904-11	3.3	27
59	Rational Design of Magnetic Micronanoelectrodes for Recognition and Ultrasensitive Quantification of Cysteine Enantiomers. *Analytical Chemistry*, **2018**, 90, 3374-3381	7.8	26
58	Unravelling nonspecific adsorption of complex protein mixture on surfaces with SPR and MS. *Analytical Chemistry*, **2014**, 86, 9612-9	7.8	26
57	Block Copolymer Brush Layer-Templated Gold Nanoparticles on Nanofibers for Surface-Enhanced Raman Scattering Optophysiology. *ACS Applied Materials & Interfaces*, **2019**, 11, 4373-4384	9.5	26
56	Epstein-Barr virus-induced gene 3 (EBI3) can mediate IL-6 -signaling. *Journal of Biological Chemistry*, **2017**, 292, 6644-6656	5.4	24
55	Localized and Propagating Surface Plasmons in Gold Particles of Near-Micron Size. *Journal of Physical Chemistry C*, **2009**, 113, 40-44	3.8	24
54	High Sensitivity of Plasmonic Microstructures near the Transition from Short-Range to Propagating Surface Plasmon. *Journal of Physical Chemistry C*, **2009**, 113, 10052-10060	3.8	24
53	Branched Au Nanoparticles on Nanofibers for Surface-Enhanced Raman Scattering Sensing of Intracellular pH and Extracellular pH Gradients. *ACS Sensors*, **2020**, 5, 2155-2167	9.2	23
52	Hybridization conditions of oligonucleotide-capped gold nanoparticles for SPR sensing of microRNA. *Biosensors and Bioelectronics*, **2018**, 109, 230-236	11.8	23

51	Influence of the Debye length on the interaction of a small molecule-modified Au nanoparticle with a surface-bound bioreceptor. *Chemical Communications*, **2014**, 50, 4947-50	5.8	23
50	Compact multi-channel surface plasmon resonance sensor for real-time multi-analyte biosensing. *Optics Express*, **2015**, 23, 20540-8	3.3	22
49	Au nanoparticles as label-free competitive reporters for sensitivity enhanced fiber-optic SPR heparin sensor. *Biosensors and Bioelectronics*, **2020**, 154, 112039	11.8	22
48	Monitoring of recombinant survival motor neuron protein using fiber-optic surface plasmon resonance. *Analyst, The*, **2004**, 129, 855-9	5	22
47	Response Monitoring of Acute Lymphoblastic Leukemia Patients Undergoing l-Asparaginase Therapy: Successes and Challenges Associated with Clinical Sample Analysis in Plasmonic Sensing. *ACS Sensors*, **2016**, 1, 1358-1365	9.2	20
46	Naked-eye nanobiosensor for therapeutic drug monitoring of methotrexate. *Analyst, The*, **2016**, 141, 697-703	5	18
45	A field-deployed surface plasmon resonance (SPR) sensor for RDX quantification in environmental waters. *Analyst, The*, **2017**, 142, 2161-2168	5	18
44	Non-specific adsorption of crude cell lysate on surface plasmon resonance sensors. *Langmuir*, **2013**, 29, 10141-8	4	18
43	Nondestructive monitoring of the photochromic state of dithienylethene monolayers by surface plasmon resonance. *Langmuir*, **2005**, 21, 7413-20	4	18
42	Correlated AFM and SERS imaging of the transition from nanotriangle to nanohole arrays. *Chemical Communications*, **2011**, 47, 3404-6	5.8	16
41	Ultra-low fouling alkylimidazolium modified surfaces for the detection of HER2 in breast cancer cell lysates [corrected]. *Analyst, The*, **2017**, 142, 2343-2353	5	16
40	Metal-enhanced fluorescence and FRET on nanohole arrays excited at angled incidence. *Analyst, The*, **2015**, 140, 4792-8	5	15
39	SERS in biology/biomedical SERS: general discussion. *Faraday Discussions*, **2017**, 205, 429-456	3.6	15
38	The Fundamentals of Real-Time Surface Plasmon Resonance/Electrogenerated Chemiluminescence. *Angewandte Chemie - International Edition*, **2019**, 58, 18202-18206	16.4	14
37	A Rapid and Quantitative Serum Test for SARS-CoV-2 Antibodies with Portable Surface Plasmon Resonance Sensing		14
36	From single cells to complex tissues in applications of surface-enhanced Raman scattering. *Analyst, The*, **2020**, 145, 7162-7185	5	14
35	Microdialysis SPR: diffusion-gated sensing in blood. *Chemical Science*, **2015**, 6, 4247-4254	9.4	13
34	High Figure of Merit (FOM) of Bragg Modes in Au-Coated Nanodisk Arrays for Plasmonic Sensing. *Small*, **2017**, 13, 1700908	11	13

33	Multiplexed SERS Detection of Microcystins with Aptamer-Driven Core-Satellite Assemblies. *ACS Applied Materials & Interfaces*, **2021**, 13, 6545-6556	9.5	13
32	Novel tungsten phosphide embedded nitrogen-doped carbon nanotubes: A portable and renewable monitoring platform for anticancer drug in whole blood. *Biosensors and Bioelectronics*, **2018**, 105, 226-235	11.8	12
31	Surface Plasmon Resonance Imaging-MALDI-TOF Imaging Mass Spectrometry of Thin Tissue Sections. *Analytical Chemistry*, **2016**, 88, 2072-9	7.8	12
30	Spectroscopic and Physical Characterization of Functionalized Au Nanoparticles: A Multiweek Experimental Project. *Journal of Chemical Education*, **2014**, 91, 1557-1562	2.4	12
29	Electroformation of peptide self-assembled monolayers on gold. *Langmuir*, **2012**, 28, 22-6	4	11
28	Monolayer Arrays of Nanoparticles on Block Copolymer Brush Films. *Langmuir*, **2019**, 35, 5114-5124	4	10
27	Hybrid Nanodisk Film for Ultra-Narrowband Filtering, Near-Perfect Absorption and Wide Range Sensing. *Nanomaterials*, **2019**, 9,	5.4	9
26	Wavelength-Tunable Optical Fiber Localized Surface Plasmon Resonance Biosensor a Diblock Copolymer-Templated Nanorod Monolayer. *ACS Applied Materials & Interfaces*, **2020**, 12, 50929-50940	9.5	9
25	In Vitro Drug Release and Biocatalysis from pH-Responsive Gold Nanoparticles Synthesized Using Doxycycline. *Langmuir*, **2019**, 35, 16266-16274	4	9
24	Ultrasensitive and towards single molecule SERS: general discussion. *Faraday Discussions*, **2017**, 205, 291-330	3.6	9
23	Enhancement of Gold Nanoparticle Coupling with a 2D Plasmonic Crystal at High Incidence Angles. *Analytical Chemistry*, **2018**, 90, 6683-6692	7.8	8
22	Templating Gold Nanoparticles on Nanofibers Coated with a Block Copolymer Brush for Nanosensor Applications. *ACS Applied Nano Materials*, **2020**, 3, 516-529	5.6	7
21	Comparative study of block copolymer-templated localized surface plasmon resonance optical fiber biosensors: CTAB or citrate-stabilized gold nanorods. *Sensors and Actuators B: Chemical*, **2021**, 329, 129094	8.5	7
20	Cross-validation of ELISA and a portable surface plasmon resonance instrument for IgG antibody serology with SARS-CoV-2 positive individuals. *Analyst, The*, **2021**, 146, 4905-4917	5	7
19	Development of Asparaginase II for Immunosensing: A Trade-Off between Receptor Density and Sensing Efficiency. *ACS Omega*, **2017**, 2, 2114-2125	3.9	6
18	Phase transitions of an ionic liquid self-assembled monolayer on Au. *Physical Chemistry Chemical Physics*, **2011**, 13, 12015-23	3.6	6
17	Growth of AuNPs on Glass Nanofibers for SERS Sensors. *ACS Applied Materials & Interfaces*, **2020**, 12, 55349-55361	9.5	6
16	Surface-Enhanced Raman Scattering Optophysiology Nanofibers for the Detection of Heavy Metals in Single Breast Cancer Cells. *ACS Sensors*, **2021**, 6, 1649-1662	9.2	6

List of Publications

15	Controllable design of polycrystalline synergies: Hybrid FeOx nanoparticles applicable to electrochemical sensing antineoplastic drug in mammalian cells. *Sensors and Actuators B: Chemical*, **2018**, 275, 1-9	8.5	5
14	Metallic Nanowire Array–Polymer Hybrid Film for Surface Plasmon Resonance Sensitivity Enhancement and Spectral Range Enlargement. *Plasmonics*, **2014**, 9, 319-326	2.4	5
13	Generation of Multiple Plasmon Resonances in a Nanochannel. *IEEE Photonics Journal*, **2013**, 5, 4500509-4500509		5
12	Simple multistep assembly of hybrid carbon material based microelectrode for highly sensitive detection of neurotransmitters. *Journal of Electroanalytical Chemistry*, **2020**, 863, 114082	4.1	4
11	The Fundamentals of Real-Time Surface Plasmon Resonance/Electrogenerated Chemiluminescence. *Angewandte Chemie*, **2019**, 131, 18370-18374	3.6	4
10	Drug-Based Gold Nanoparticles Overgrowth for Enhanced SPR Biosensing of Doxycycline. *Biosensors*, **2020**, 10,	5.9	4
9	A high-throughput plasmonic tongue using an aggregation assay and nonspecific interactions: classification of taste profiles in maple syrup. *Analytical Methods*, **2020**, 12, 2460-2468	3.2	3
8	Enhanced SPR sensing based on micro-patterned thin films **2011**,		3
7	A blueprint for performing SERS measurements in tissue with plasmonic nanofibers. *Journal of Chemical Physics*, **2020**, 153, 124702	3.9	2
6	Comparative study of serum sample preparation methods in aggregation-based plasmonic sensing. *Analyst, The*, **2021**, 145, 7946-7955	5	2
5	Surface Spectroscopy of Nanomaterials for Detection of Diseases. *Advances in Electrochemical Science and Engineering*, **2017**, 271-293		1
4	Tracking Silent Hypersensitivity Reactions to Asparaginase during Leukemia Therapy Using Single-Chip Indirect Plasmonic and Fluorescence Immunosensing. *ACS Sensors*, **2017**, 2, 1761-1766	9.2	1
3	Cross-reactivity of antibodies from non-hospitalized COVID-19 positive individuals against the native, B.1.351, B.1.617.2, and P.1 SARS-CoV-2 spike proteins. *Scientific Reports*, **2021**, 11, 21601	4.9	1
2	In-situ dynamic reaction of Ag NPs: Strategy for the construction of a sensitive electrochemical chiral sensor. *Sensors and Actuators B: Chemical*, **2020**, 319, 128315	8.5	1
1	Surface Plasmon-Enhanced Nanohole Arrays for Biosensing **2017**, 579-608		