Sumeet Mahajan

List of Publications by Year
in descending order

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118 papers	5,329 citations	81434 41 h-index	100535 70 g-index
124 all docs	124 docs citations	124 times ranked	8865 citing authors

#	Article	IF	Citations
1	Multi-Excitation Raman Spectroscopy for Label-Free, Strain-Level Characterization of Bacterial Pathogens in Artificial Sputum Media. Analytical Chemistry, 2022, 94, 669-677.	3.2	13
2	Raman Scattering Techniques for Defense and Security Applications. Analytical Chemistry, 2021, 93, 417-429.	3.2	13
3	Widely-tunable synchronisation-free picosecond laser source for multimodal CARS, SHG, and two-photon microscopy. Biomedical Optics Express, 2021, 12, 1010.	1.5	8
4	Conformational fingerprinting of tau variants and strains by Raman spectroscopy. RSC Advances, 2021, 11, 8899-8915.	1.7	15
5	Multiscale molecular profiling of pathological bone resolves sexually dimorphic control of extracellular matrix composition. DMM Disease Models and Mechanisms, 2021, 14, .	1.2	4
6	Selective Imaging of Microplastic and Organic Particles in Flow by Multimodal Coherent Anti-Stokes Raman Scattering and Two-Photon Excited Autofluorescence Analysis. Analytical Chemistry, 2021, 93, 5234-5240.	3.2	15
7	Superresolved polarization-enhanced second-harmonic generation for direct imaging of nanoscale changes in collagen architecture. Optica, 2021, 8, 674.	4.8	15
8	Optical nonlinearities in chemically synthesized and femtosecond laser fabricated gold nanoparticle colloidal solutions. Optics and Laser Technology, 2021, 139, 107008.	2.2	30
9	A versatile, low cost light source module for multiphoton imaging. , 2021, , .		1
10	Antibiotic-Loaded Polymersomes for Clearance of Intracellular Burkholderia thailandensis. ACS Nano, 2021, 15, 19284-19297.	7.3	10
11	A synchronisation free, versatile Optical Parametric Amplifier as a low cost light source for multiphoton imaging.. , 2021, , .		0
12	High-power, high-efficiency, all-fiberized-laser-pumped, 260-nm, deep-UV laser for bacterial deactivation. Optics Express, 2021, 29, 42485.	1.7	12
13	Serum Raman spectroscopy as a diagnostic tool in patients with Huntington's disease. Chemical Science, 2020, 11, 525-533.	3.7	35
14	Raman spectroscopy links differentiating osteoblast matrix signatures to pro-angiogenic potential. Matrix Biology Plus, 2020, 5, 100018.	1.9	9
15	Multimodal spectral focusing CARS and SFG microscopy with a tailored coherent continuum from a microstructured fiber. Applied Physics B: Lasers and Optics, 2020, 126, 1.	1.1	21
16	Identification of microplastics in a large water volume by integrated holography and Raman spectroscopy. Applied Optics, 2020, 59, 5073.	0.9	31
17	Ge on Si waveguide mid-infrared absorption spectroscopy of proteins and their aggregates. Biomedical Optics Express, 2020, 11, 4714.	1.5	11
18	Regulation of the Bone Vascular Network is Sexually Dimorphic. Journal of Bone and Mineral Research, 2019, 34, 2117-2132.	3.1	19

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19	Conformational Evolution of Molecular Signatures during Amyloidogenic Protein Aggregation. ACS Chemical Neuroscience, 2019, 10, 4593-4611.	1.7	19
20	Tuneable Metamaterial-like Platforms for Surface-Enhanced Raman Scattering via Three-Dimensional Block Co-polymer-Based Nanoarchitectures. ACS Applied Materials & Interfaces, 2019, 11, 14437-14444.	4.0	19
21	Live-imaging of Bioengineered Cartilage Tissue using Multimodal Non-linear Molecular Imaging. Scientific Reports, 2019, 9, 5561.	1.6	15
22	Comparison of SC Fibers for fs Ti:Sapphire Based Hyperspectral CARS Microscopy. , 2019, , .		0
23	Raman Spectroscopy: An Emerging Tool in Neurodegenerative Disease Research and Diagnosis. ACS Chemical Neuroscience, 2018, 9, 404-420.	1.7	140
24	Tuning plasmons layer-by-layer for quantitative colloidal sensing with surface-enhanced Raman spectroscopy. Nanoscale, 2018, 10, 7138-7146.	2.8	16
25	Quantitative temporal interrogation in 3D of bioengineered human cartilage using multimodal label-free imaging. Integrative Biology (United Kingdom), 2018, 10, 635-645.	0.6	7
26	Nanoscale dysregulation of collagen structure-function disrupts mechano-homeostasis and mediates pulmonary fibrosis. ELife, 2018, 7, .	2.8	99
27	Optimising superoscillatory spots for far-field super-resolution imaging. Optics Express, 2018, 26, 8095.	1.7	43
28	Optical fibre-tip probes for SERS: numerical study for design considerations. Optics Express, 2018, 26, 15539.	1.7	19
29	Hepatic Steatosis Accompanies Pulmonary Alveolar Proteinosis. American Journal of Respiratory Cell and Molecular Biology, 2017, 57, 448-458.	1.4	12
30	Detection of early osteogenic commitment in primary cells using Raman spectroscopy. Analyst, The, 2017, 142, 1962-1973.	1.7	22
31	Coherent antiâ€Stokes Raman scattering (CARS) spectroscopy in <scp>Caenorhabditis elegans</scp> and Globodera pallida: evidence for an ivermectinâ€activated decrease in lipid stores. Pest Management Science, 2017, 73, 2550-2558.	1.7	8
32	Ultrasensitive and towards single molecule SERS: general discussion. Faraday Discussions, 2017, 205, 291-330.	1.6	11
33	SERS in biology/biomedical SERS: general discussion. Faraday Discussions, 2017, 205, 429-456.	1.6	22
34	Analytical SERS: general discussion. Faraday Discussions, 2017, 205, 561-600.	1.6	14
35	Theory of SERS enhancement: general discussion. Faraday Discussions, 2017, 205, 173-211.	1.6	27
36	What do we actually see in intracellular SERS? Investigating nanosensor-induced variation. Faraday Discussions, 2017, 205, 409-428.	1.6	8

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37	The histone deacetylase inhibitor, romidepsin, as a potential treatment for pulmonary fibrosis. Oncotarget, 2017, 8, 48737-48754.	0.8	48
38	Raman spectroscopy and coherent anti-Stokes Raman scattering imaging: prospective tools for monitoring skeletal cells and skeletal regeneration. Journal of the Royal Society Interface, 2016, 13, 20160182.	1.5	41
39	Optimizing SERS from Gold Nanoparticle Clusters: Addressing the Near Field by an Embedded Chain Plasmon Model. Journal of Physical Chemistry C, 2016, 120, 10512-10522.	1.5	46
40	Nanoparticles and intracellular applications of surface-enhanced Raman spectroscopy. Analyst, The, 2016, 141, 5037-5055.	1.7	86
41	Observing Single Molecules Complexing with Cucurbit[7]uril through Nanogap Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 704-710.	2.1	73
42	Characterization and Visualization of Vesicles in the Endo-Lysosomal Pathway with Surface-Enhanced Raman Spectroscopy and Chemometrics. ACS Nano, 2016, 10, 307-316.	7.3	84
43	Rescue from tau-induced neuronal dysfunction produces insoluble tau oligomers. Scientific Reports, 2015, 5, 17191.	1.6	42
44	Single Nanoparticle-Based Heteronanojunction as a Plasmon Ruler for Measuring Dielectric Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 2282-2286.	2.1	17
45	Standing-wave-excited multiplanar fluorescence in a laser scanning microscope reveals 3D information on red blood cells. Scientific Reports, 2015, 4, 7359.	1.6	10
46	Standing-wave excitation of fluorescence in a laser-scanning microscope allows precise contour mapping of the red blood cell membrane. Proceedings of SPIE, 2015, , .	0.8	0
47	Surfactant protein A (SP-A) inhibits agglomeration and macrophage uptake of toxic amine modified nanoparticles. Nanotoxicology, 2015, 9, 952-962.	1.6	28
48	Visualizing Electromagnetic Fields at the Nanoscale by Single Molecule Localization. Nano Letters, 2015, 15, 3217-3223.	4.5	15
49	Tracking adipogenic differentiation of skeletal stem cells by label-free chemically selective imaging. Chemical Science, 2015, 6, 7089-7096.	3.7	20
50	Investigating biomechanical noise in neuroblastoma cells using the quartz crystal microbalance. Journal of the Royal Society Interface, 2015, 12, 20141389.	1.5	1
51	Visualisation of plasmonic fields at the nanoscale with single molecule localisation microscopy. Proceedings of SPIE, 2015, , .	0.8	0
52	Surfactant-free coating of thiols on gold nanoparticles using sonochemistry: A study of competing processes. Ultrasonics Sonochemistry, 2014, 21, 1886-1892.	3.8	8
53	Single Nanoparticle SERS Probes of Ion Intercalation in Metal-Oxide Electrodes. Nano Letters, 2014, 14, 495-498.	4.5	51
54	Gold nanoparticles explore cells: Cellular uptake and their use as intracellular probes. Methods, 2014, 68, 354-363.	1.9	62

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55	CARS based labelâ€free assay for assessment of drugs by monitoring lipid droplets in tumour cells. Journal of Biophotonics, 2014, 7, 906-913.	1.1	25
56	Reproducible Deep-UV SERRS on Aluminum Nanovoids. Journal of Physical Chemistry Letters, 2013, 4, 1449-1452.	2.1	101
57	Interaction of metallic nanoparticles with dielectric substrates: effect of optical constants. Nanotechnology, 2013, 24, 035201.	1.3	50
58	Near-Field Plasmonics of an Individual Dielectric Nanoparticle above a Metallic Substrate. Journal of Physical Chemistry C, 2013, 117, 7784-7790.	1.5	53
59	Wavelength modulated surface enhanced (resonance) Raman scattering for background-free detection. Analyst, The, 2013, 138, 2816.	1.7	8
60	Single molecule SERS and detection of biomolecules with a single gold nanoparticle on a mirror junction. Analyst, The, 2013, 138, 4574.	1.7	115
61	Intracellular SERS Nanoprobes For Distinction Of Different Neuronal Cell Types. Nano Letters, 2013, 13, 2463-2470.	4.5	140
62	In Situ SERS Monitoring of Photochemistry within a Nanojunction Reactor. Nano Letters, 2013, 13, 5985-5990.	4.5	85
63	Tunable Microstructured Surface-Enhanced Raman Scattering Substrates via Electrohydrodynamic Lithography. Journal of Physical Chemistry Letters, 2013, 4, 4153-4159.	2.1	23
64	Mapping gigahertz vibrations in a plasmonicâ€“phononic crystal. New Journal of Physics, 2013, 15, 023013.	1.2	12
65	Nearâ€field optical enhancement by leadâ€sulfide quantum dots and metallic nanoparticles for SERS. Journal of Raman Spectroscopy, 2013, 44, 1292-1298.	1.2	10
66	Coherent anti-Stokes Raman scattering for label-free biomedical imaging. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	21
67	Molecular imaging with surface-enhanced CARS on nanostructures. Proceedings of SPIE, 2012, , .	0.8	1
68	Disentangling the Peak and Background Signals in Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2012, 116, 6184-6190.	1.5	22
69	Simple Composite Dipole Model for the Optical Modes of Strongly-Coupled Plasmonic Nanoparticle Aggregates. Journal of Physical Chemistry C, 2012, 116, 25044-25051.	1.5	35
70	Increasing the Open-Circuit Voltage of Photoprotein-Based Photoelectrochemical Cells by Manipulation of the Vacuum Potential of the Electrolytes. ACS Nano, 2012, 6, 9103-9109.	7.3	43
71	Optimized Vertical Carbon Nanotube Forests for Multiplex Surface-Enhanced Raman Scattering Detection. Journal of Physical Chemistry Letters, 2012, 3, 3486-3492.	2.1	24
72	Solvent-Resistant Ultraflat Gold Using Liquid Glass. Langmuir, 2012, 28, 1347-1350.	1.6	13

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73	Quantitative SERS Using the Sequestration of Small Molecules Inside Precise Plasmonic Nanoconstructs. Nano Letters, 2012, 12, 5924-5928.	4.5	142
74	Metal Oxide Nanoparticle Mediated Enhanced Raman Scattering and Its Use in Direct Monitoring of Interfacial Chemical Reactions. Nano Letters, 2012, 12, 4242-4246.	4.5	103
75	Direct Visualization of Symmetry Breaking During Janus Nanoparticle Formation. Small, 2012, 8, 2698-2703.	5.2	18
76	Hierarchical Electrohydrodynamic Structures for Surfaceâ€Enhanced Raman Scattering. Advanced Materials, 2012, 24, OP175-80, OP174.	11.1	44
77	Hierarchical Electrohydrodynamic Structures for Surface-Enhanced Raman Scattering (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlo	11.1	0
78	SERS from two-tier sphere segment void substrates. Physical Chemistry Chemical Physics, 2011, 13, 16661.	1.3	17
79	Precise Subnanometer Plasmonic Junctions for SERS within Gold Nanoparticle Assemblies Using Cucurbit[n]uril â€œGlueâ€• ACS Nano, 2011, 5, 3878-3887.	7.3	322
80	Enhancing solar cells with localized plasmons in nanovoids. Optics Express, 2011, 19, 11256.	1.7	76
81	Surface Enhanced Coherent Anti-Stokes Raman Scattering on Nanostructured Gold Surfaces. Nano Letters, 2011, 11, 5339-5343.	4.5	125
82	Temperature dependence of surface-enhanced Raman scattering on nanostructured plasmonic surfaces. , 2011, , .		0
83	Plasmonic junctions with cucurbit[5]uril ‘glue’: fabrication of precise sub-nm junctions in gold nanoparticle assemblies. , 2011, , .		0
84	Tracking molecular binding to nanostructures using CO2 snow jet on plasmonic SERS substrates. , 2011, , .		0
85	Active Plasmon Tuning of Metal-Elastomer Nanostructures. , 2010, , .		0
86	Mimicking the colourful wing scale structure of the Papilio blumei butterfly. Nature Nanotechnology, 2010, 5, 511-515.	15.6	353
87	Raman and SERS spectroscopy of cucurbit[n]urils. Physical Chemistry Chemical Physics, 2010, 12, 10429.	1.3	71
88	Understanding the Surface-Enhanced Raman Spectroscopy â€œBackgroundâ€• Journal of Physical Chemistry C, 2010, 114, 7242-7250.	1.5	118
89	Improved electrochromic performance in inverse opal vanadium oxide films. Journal of Materials Chemistry, 2010, 20, 7131.	6.7	45
90	Surface-Enhanced Raman Scattering of Semiconducting Quantum Dots on Nanostructured Plasmonic Surfaces. , 2010, , .		0

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91	Nanovoid Plasmonic-Enhanced Low-Cost Photovoltaics. , 2010, , .		0
92	Nanovoid Plasmonic-Enhanced Low-Cost Photovoltaics. , 2010, , .		0
93	Nanostructured Calcite Single Crystals with Gyroid Morphologies. Advanced Materials, 2009, 21, 3928-3932.	11.1	103
94	The Use of an Electroactive Marker as a SERS Label in an Eâ€melting Mutation Discrimination Assay. Electroanalysis, 2009, 21, 2190-2197.	1.5	19
95	EC-AFM investigation of reversible volume changes with electrode potential in polyaniline. Journal of Electroanalytical Chemistry, 2009, 625, 16-26.	1.9	40
96	UV SERS at well ordered Pd sphere segment void (SSV) nanostructures. Physical Chemistry Chemical Physics, 2009, 11, 1023-1026.	1.3	42
97	Engineering SERS via absorption control in novel hybrid Ni/Au nanovoids. Optics Express, 2009, 17, 13298.	1.7	30
98	Relating SERS Intensity to Specific Plasmon Modes on Sphere Segment Void Surfaces. Journal of Physical Chemistry C, 2009, 113, 9284-9289.	1.5	83
99	Surface-enhanced Raman spectroscopy of CdSe quantum dots on nanostructured plasmonic surfaces. Applied Physics Letters, 2009, 95, 141111.	1.5	56
100	Stretchable metal-elastomer nanovoids for tunable plasmons. Applied Physics Letters, 2009, 95, .	1.5	43
101	Electrodeposition of highly ordered macroporous iridium oxide through self-assembled colloidal templates. Journal of Materials Chemistry, 2009, 19, 3855.	6.7	51
102	Using nanocavity plasmons to improve solar cell efficiency. , 2009, , .		0
103	SERS-Melting: A New Method for Discriminating Mutations in DNA Sequences. Journal of the American Chemical Society, 2008, 130, 15589-15601.	6.6	165
104	Templated self-assembly and nano-plasmonics of nano-void surfaces. , 2008, , .		0
105	Morphological changes with electrode potential in microtubules and nanowires of Polyaniline: An in-situ EC-AFM study. , 2007, , .		1
106	SERS at Structured Palladium and Platinum Surfaces. Journal of the American Chemical Society, 2007, 129, 7399-7406.	6.6	185
107	Reproducible SERRS from structured gold surfaces. Physical Chemistry Chemical Physics, 2007, 9, 6016.	1.3	89
108	Understanding Plasmons in Nanoscale Voids. Nano Letters, 2007, 7, 2094-2100.	4.5	182

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109	Tuning plasmons on nano-structured substrates for NIR-SERS. Physical Chemistry Chemical Physics, 2007, 9, 104-109.	1.3	107
110	Immobilization of Antibodies on Polyaniline Films and Its Application in a Piezoelectric Immunosensor. Analytical Chemistry, 2006, 78, 8368-8373.	3.2	66
111	Localized and delocalized plasmons in metallic nanovoids. Physical Review B, 2006, 74, .	1.1	250
112	Easily Coupled Whispering Gallery Plasmons in Dielectric Nanospheres Embedded in Gold Films. Physical Review Letters, 2006, 97, 137401.	2.9	71
113	Simple time weighted average level air-monitoring method for sulfur mustard in work places. Journal of Chromatography A, 2001, 907, 229-234.	1.8	10
114	meso-Aryl sapphyrins with heteroatoms; synthesis, characterization, spectral and electrochemical properties. Journal of the Chemical Society Perkin Transactions II, 1999, , 961-968.	0.9	42
115	Ground and Excited State Dynamics of Core-modified Normal and Expanded Porphyrins. Journal of Porphyrins and Phthalocyanines, 1998, 02, 305-314.	0.4	13
116	Synthesis of meso-substituted core modified expanded porphyrins; effect of acid catalysts on the cyclization. Tetrahedron Letters, 1998, 39, 1961-1964.	0.7	32
117	One pot synthesis of core modified expanded porphyrins. Tetrahedron Letters, 1998, 39, 9249-9252.	0.7	31
118	Development of Unconventional Nanoâ€Metamaterials from Viral Nanoâ€Building Blocks. Advanced Optical Materials, 0, , 2102784.	3.6	1