

Martin Moskovits

List of Publications by Citations

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111
papers

17,010
citations

48
h-index

121
g-index

121
ext. papers

18,869
ext. citations

11.1
avg, IF

7.2
L-index

#	Paper	IF	Citations
111	Surface-enhanced spectroscopy. <i>Reviews of Modern Physics</i> , 1985 , 57, 783-826	40.5	4439
110	Surface-enhanced Raman spectroscopy: a brief retrospective. <i>Journal of Raman Spectroscopy</i> , 2005 , 36, 485-496	2.3	1369
109	Present and Future of Surface-Enhanced Raman Scattering. <i>ACS Nano</i> , 2020 , 14, 28-117	16.7	1000
108	CHEMICAL SENSING AND CATALYSIS BY ONE-DIMENSIONAL METAL-OXIDE NANOSTRUCTURES. <i>Annual Review of Materials Research</i> , 2004 , 34, 151-180	12.8	942
107	An autonomous photosynthetic device in which all charge carriers derive from surface plasmons. <i>Nature Nanotechnology</i> , 2013 , 8, 247-51	28.7	891
106	Electromagnetic theories of surface-enhanced Raman spectroscopy. <i>Chemical Society Reviews</i> , 2017 , 46, 4042-4076	58.5	662
105	Electrochemical Fabrication of CdS Nanowire Arrays in Porous Anodic Aluminum Oxide Templates. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 14037-14047		579
104	Plasmonic photoanodes for solar water splitting with visible light. <i>Nano Letters</i> , 2012 , 12, 5014-9	11.5	430
103	Plasmonic photosensitization of a wide band gap semiconductor: converting plasmons to charge carriers. <i>Nano Letters</i> , 2011 , 11, 5548-52	11.5	345
102	Anisotropic Growth of TiO ₂ onto Gold Nanorods for Plasmon-Enhanced Hydrogen Production from Water Reduction. <i>Journal of the American Chemical Society</i> , 2016 , 138, 1114-7	16.4	329
101	Surface-enhanced Raman spectroscopy for DNA detection by nanoparticle assembly onto smooth metal films. <i>Journal of the American Chemical Society</i> , 2007 , 129, 6378-9	16.4	288
100	Enhanced Raman scattering by fractal clusters: Scale-invariant theory. <i>Physical Review B</i> , 1992 , 46, 2821-2830	3.9	239
99	Persistent misconceptions regarding SERS. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 5301-11	3.6	232
98	Surface-Enhanced Raman Spectroscopy and Nanogeometry: The Plasmonic Origin of SERS. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 17985-17988	3.8	225
97	Plasmonic properties of gold nanoparticles separated from a gold mirror by an ultrathin oxide. <i>Nano Letters</i> , 2012 , 12, 2088-94	11.5	221
96	Nanowires formed in anodic oxide nanotemplates. <i>Journal of Materials Research</i> , 1994 , 9, 1014-1018	2.5	210
95	Photon scanning tunneling microscopy images of optical excitations of fractal metal colloid clusters. <i>Physical Review Letters</i> , 1994 , 72, 4149-4152	7.4	208

94	Templated Synthesis of Highly Ordered Mesostructured Nanowires and Nanowire Arrays. <i>Nano Letters</i> , 2004 , 4, 2337-2342	11.5	190
93	Rapid identification by surface-enhanced Raman spectroscopy of cancer cells at low concentrations flowing in a microfluidic channel. <i>ACS Nano</i> , 2015 , 9, 4328-36	16.7	161
92	Hot Charge Carrier Transmission from Plasmonic Nanostructures. <i>Annual Review of Physical Chemistry</i> , 2017 , 68, 379-398	15.7	159
91	Polarized Surface Enhanced Raman Scattering from Aligned Silver Nanowire Rafts. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 12724-12728	3.4	159
90	SERS and the Single Molecule 2002 , 215-227		157
89	Generalized Approach to SERS-Active Nanomaterials via Controlled Nanoparticle Linking, Polymer Encapsulation, and Small-Molecule Infusion. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 13622-13629	3.8	149
88	Nanoscale Electroless Metal Deposition in Aligned Carbon Nanotubes. <i>Chemistry of Materials</i> , 1998 , 10, 1963-1967	9.6	147
87	Mapping local pH in live cells using encapsulated fluorescent SERS nanotags. <i>Small</i> , 2010 , 6, 618-22	11	144
86	Rapid detection of drugs of abuse in saliva using surface enhanced Raman spectroscopy and microfluidics. <i>ACS Nano</i> , 2013 , 7, 7157-64	16.7	134
85	On the plasmonic photovoltaic. <i>ACS Nano</i> , 2014 , 8, 6066-73	16.7	128
84	The case for plasmon-derived hot carrier devices. <i>Nature Nanotechnology</i> , 2015 , 10, 6-8	28.7	126
83	Large Format Surface-Enhanced Raman Spectroscopy Substrate Optimized for Enhancement and Uniformity. <i>ACS Nano</i> , 2016 , 10, 7566-71	16.7	111
82	Aptamer-mediated surface-enhanced Raman spectroscopy intensity amplification. <i>Nano Letters</i> , 2010 , 10, 4181-5	11.5	101
81	Visualizing chromatographic separation of metal ions on a surface-enhanced Raman active medium. <i>Nano Letters</i> , 2011 , 11, 145-50	11.5	100
80	Polarized Raman scattering from single GaN nanowires. <i>Physical Review B</i> , 2006 , 74,	3.3	97
79	Rapid, solution-based characterization of optimized SERS nanoparticle substrates. <i>Journal of the American Chemical Society</i> , 2009 , 131, 162-9	16.4	91
78	Tin-oxide-nanowire-based electronic nose using heterogeneous catalysis as a functionalization strategy. <i>ACS Nano</i> , 2010 , 4, 3117-22	16.7	89
77	Topotactic Thermal Oxidation of Sn Nanowires: Intermediate Suboxides and Core-Shell Metastable Structures. <i>Nano Letters</i> , 2003 , 3, 1125-1129	11.5	81

76	Free-surface microfluidics/surface-enhanced Raman spectroscopy for real-time trace vapor detection of explosives. <i>Analytical Chemistry</i> , 2012 , 84, 9700-5	7.8	78
75	Panchromatic photoproduction of H ₂ with surface plasmons. <i>Nano Letters</i> , 2015 , 15, 2132-6	11.5	74
74	Smart SERS Hot Spots: Single Molecules Can Be Positioned in a Plasmonic Nanojunction Using Host-Guest Chemistry. <i>Journal of the American Chemical Society</i> , 2018 , 140, 4705-4711	16.4	70
73	Reversible tuning of SERS hot spots with aptamers. <i>Advanced Materials</i> , 2011 , 23, 4152-6	24	70
72	Applied physics. Hot electrons cross boundaries. <i>Science</i> , 2011 , 332, 676-7	33.3	67
71	Adsorbate Photochemistry on a Colloid Surface: Phthalazine on Silver. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 805-813		62
70	Quantitative ratiometric discrimination between noncancerous and cancerous prostate cells based on neuropilin-1 overexpression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 16559-64	11.5	57
69	Disentangling charge carrier from photothermal effects in plasmonic metal nanostructures. <i>Nature Communications</i> , 2019 , 10, 2671	17.4	56
68	Nanostructure-Dependent Metal/Insulator Transitions in Vanadium-Oxide Nanowires. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 13328-13331	3.8	53
67	Hot carrier filtering in solution processed heterostructures: a paradigm for improving thermoelectric efficiency. <i>Advanced Materials</i> , 2014 , 26, 2755-61, 2618	24	51
66	Light-induced kinetic effects in solids. <i>Physical Review B</i> , 1996 , 53, 11388-11402	3.3	51
65	Optimization of Surface-Enhanced Raman Spectroscopy Conditions for Implementation into a Microfluidic Device for Drug Detection. <i>Analytical Chemistry</i> , 2016 , 88, 10513-10522	7.8	49
64	Detection of low concentrations of ampicillin in milk. <i>Analyst, The</i> , 2015 , 140, 5003-5	5	48
63	CdSe nanorods dominate photocurrent of hybrid CdSe-P3HT photovoltaic cell. <i>ACS Nano</i> , 2010 , 4, 6132-66.7		48
62	Dual-reporter SERS-based biomolecular assay with reduced false-positive signals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 9056-9061	11.5	47
61	Aptatag-based multiplexed assay for protein detection by surface-enhanced Raman spectroscopy. <i>Small</i> , 2010 , 6, 1550-7	11	47
60	Template-grown high-density nanocapacitor arrays. <i>Applied Physics Letters</i> , 2000 , 77, 1722-1724	3.4	47
59	Fe Nanowires in Nanoporous Alumina: Geometric Effect versus Influence of Pore Walls. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 2252-2255	3.8	46

58	High-yield TiO ₂ nanowire synthesis and single nanowire field-effect transistor fabrication. <i>Applied Physics Letters</i> , 2008 , 92, 242111	3.4	44
57	Biotags Based on Surface-Enhanced Raman Can Be as Bright as Fluorescence Tags. <i>Nano Letters</i> , 2015 , 15, 6745-50	11.5	43
56	Effect of Surface Geometry on the Photochemical Reaction of 1,10-Phenanthroline Adsorbed on Silver Colloid Surfaces. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 8279-8285	3.4	43
55	Interfacial Construction of Plasmonic Nanostructures for the Utilization of the Plasmon-Excited Electrons and Holes. <i>Journal of the American Chemical Society</i> , 2019 , 141, 8053-8057	16.4	41
54	Robust SERS enhancement factor statistics using rotational correlation spectroscopy. <i>Nano Letters</i> , 2012 , 12, 2912-7	11.5	41
53	Insight into the Raman shifts and optical absorption changes upon annealing polymer/fullerene solar cells. <i>Applied Physics Letters</i> , 2008 , 92, 251912	3.4	41
52	Plasmon-Mediated Reduction of Aqueous Platinum Ions: The Competing Roles of Field Enhancement and Hot Charge Carriers. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 6750-6755	3.8	39
51	Critical role of adsorption equilibria on the determination of surface-enhanced Raman enhancement. <i>ACS Nano</i> , 2015 , 9, 584-93	16.7	38
50	Stackable bipolar pouch cells with corrosion-resistant current collectors enable high-power aqueous electrochemical energy storage. <i>Energy and Environmental Science</i> , 2018 , 11, 2865-2875	35.4	36
49	Surface-enhanced Raman spectroscopy: Substrates and materials for research and applications. <i>MRS Bulletin</i> , 2013 , 38, 607-611	3.2	34
48	Gate-tunable surface processes on a single-nanowire field-effect transistor. <i>Advanced Materials</i> , 2011 , 23, 2306-12	24	34
47	Photochemical decomposition at colloid surfaces. <i>The Journal of Physical Chemistry</i> , 1993 , 97, 1678-1683		34
46	A surface enhanced Raman study of carbon dioxide coadsorption with oxygen and alkali metals on silver surfaces. <i>Journal of Chemical Physics</i> , 1989 , 90, 6668-6679	3.9	34
45	Dielectrophoretic Nanoparticle Aggregation for On-Demand Surface Enhanced Raman Spectroscopy Analysis. <i>Analytical Chemistry</i> , 2018 , 90, 7930-7936	7.8	30
44	High-efficiency panchromatic hybrid Schottky solar cells. <i>Advanced Materials</i> , 2013 , 25, 256-60	24	28
43	Stabilizing inorganic photoelectrodes for efficient solar-to-chemical energy conversion. <i>Energy and Environmental Science</i> , 2013 , 6, 1633	35.4	27
42	Recent Progress and Prospects in Plasmon-Mediated Chemical Reaction. <i>Matter</i> , 2020 , 3, 42-56	12.7	26
41	Protecting the Nanoscale Properties of Ag Nanowires with a Solution-Grown SnO Monolayer as Corrosion Inhibitor. <i>Journal of the American Chemical Society</i> , 2019 , 141, 13977-13986	16.4	24

40	Growth direction determination of a single RuO ₂ nanowire by polarized Raman spectroscopy. <i>Applied Physics Letters</i> , 2010 , 96, 213108	3.4	24
39	Plasmon-Mediated Photocatalytic Decomposition of Formic Acid on Palladium Nanostructures. <i>Advanced Optical Materials</i> , 2016 , 4, 1041-1046	8.1	22
38	How the localized surface plasmon became linked with surface-enhanced Raman spectroscopy. <i>Notes and Records of the Royal Society</i> , 2012 , 66, 195-203	0.4	22
37	Photodecomposition of Diazanaphthalenes Adsorbed on Silver Colloid Surfaces. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 3594-3600	3.4	20
36	Microfluidic analysis of fentanyl-laced heroin samples by surface-enhanced Raman spectroscopy in a hydrophobic medium. <i>Analyst, The</i> , 2019 , 144, 3080-3087	5	17
35	Photochemical Desorption of 4-Vinylbenzoic Acid Adsorbed on Silver Colloid Surfaces. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 1649-1654	3.4	17
34	Dynamics of a piezoelectric tuning fork/optical fiber assembly in a near-field scanning optical microscope. <i>Review of Scientific Instruments</i> , 2000 , 71, 437-443	1.7	17
33	Detection of Papaverine for the Possible Identification of Illicit Opium Cultivation. <i>Analytical Chemistry</i> , 2017 , 89, 1684-1688	7.8	15
32	Interference effects in surface enhanced Raman scattering by thin adsorbed layers. <i>Journal of Chemical Physics</i> , 1990 , 92, 4600-4608	3.9	15
31	Properly Structured, Any Metal Can Produce Intense Surface Enhanced Raman Spectra. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 14269-14273	3.8	14
30	Plasmonic nanoreactors regulating selective oxidation by energetic electrons and nanoconfined thermal fields. <i>Science Advances</i> , 2021 , 7,	14.3	14
29	Silica-based ceramics toward electromagnetic microwave absorption. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 7381-7381	6	13
28	Merely Measuring the UV-Visible Spectrum of Gold Nanoparticles Can Change Their Charge State. <i>Nano Letters</i> , 2018 , 18, 669-674	11.5	12
27	Synthesis of Au nanoclusters supported upon a TiO ₂ nanotube array. <i>Journal of Materials Research</i> , 2005 , 20, 1093-1096	2.5	12
26	Photochemical Reactions of Phenazine and Acridine Adsorbed on Silver Colloid Surfaces. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 7462-7467	3.4	12
25	Rational Component and Structure Design of Noble-Metal Composites for Optical and Catalytic Applications. <i>Small Structures</i> , 2021 , 2, 2000138	8.7	12
24	Direct and roughness-induced indirect transitions in photoemission from silver films. <i>Surface Science</i> , 1993 , 297, L84-L90	1.8	10
23	Polarized Raman Scattering from a Single, Segmented SnO ₂ Wire. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 17270-17277	3.8	9

22	Microwave-Assisted Synthesis of Ultrastable Cu@TiO ₂ Core-Shell Nanowires with Tunable Diameters via a Redox-Hydrolysis Synergetic Process. <i>ChemNanoMat</i> , 2018 , 4, 914-918	3.5	8
21	Quantitative surface-enhanced Raman spectroscopy chemical analysis using citrate as an in situ calibrant. <i>Analyst, The</i> , 2019 , 144, 1818-1824	5	6
20	Changes in the structure of electrodeposited manganese oxide water oxidation catalysts revealed by in-operando Raman spectroscopy. <i>Journal of Catalysis</i> , 2019 , 371, 287-290	7.3	6
19	A surface plasmon enabled liquid-junction photovoltaic cell. <i>Faraday Discussions</i> , 2015 , 178, 413-20	3.6	6
18	Screening for canine transitional cell carcinoma (TCC) by SERS-based quantitative urine cytology. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018 , 14, 1279-1287	6	6
17	A brief history of surface-enhanced Raman spectroscopy and the localized surface plasmon Dedicated to the memory of Richard Van Duyne (1945-2019). <i>Journal of Raman Spectroscopy</i> , 2021 , 52, 279-284	2.3	6
16	A plasmonic liquid junction photovoltaic cell with greatly improved power conversion efficiency. <i>Chemical Communications</i> , 2016 , 52, 13460-13462	5.8	5
15	Accurately Predicting the Radiation Enhancement Factor in Plasmonic Optical Antenna Emitters. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1947-1953	6.4	4
14	Surface enhanced Raman spectroscopy of carbon nanotubes deposited on a silver self-affine fractal surface. <i>Journal of Applied Physics</i> , 2002 , 92, 3517-3523	2.5	4
13	Progress and challenges of ceramics for supercapacitors. <i>Journal of Materiomics</i> , 2021 ,	6.7	4
12	Criterion for determining resolving power in the optical near field. <i>Journal of Nanophotonics</i> , 2017 , 11, 1	1.1	3
11	Angle-dependent light scattering by highly uniform colloidal rod-shaped microparticles: Experiment and simulation. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016 , 54, 1889-1895	2.6	3
10	Progressive transition from resonant to diffuse reflection in anisotropic colloidal films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014 , 52, 611-617	2.6	2
9	Electrochemical Fabrication of the Nano-Wire Arrays: Template, Materials And Applications. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 451, 367		2
8	Phosphorus stimulated unidirectional growth of TiO ₂ nanostructures. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 6091	13	1
7	Transforming SERS into a dependable platform for ultra-sensitive molecular sensing 2010 ,		1
6	SERS Biotags (SBTs) for the Quantitative Ratiometric Discrimination between Noncancerous and Cancerous Prostate Cells. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1468, 19		1
5	Engineering Nanostructures for Single-Molecule Surface-Enhanced Raman Spectroscopy. <i>Israel Journal of Chemistry</i> , 2006 , 46, 283-291	3.4	1

- 4 Reply to "comment on high-efficiency panchromatic hybrid Schottky solar cells". *Advanced Materials*, **2013**, 25, 4826-7 24 0
- 3 Canada's early contributions to plasmonics. *Canadian Journal of Chemistry*, **2019**, 97, 483-487 0.9
- 2 Catalysis and Alternatives to Liquid Fuels. *Topics in Catalysis*, **2009**, 52, 988-992 2.3
- 1 Low Cost Integrated Sensors Utilizing Patterned Nano-Structured Titania Arrays Fabricated Using a Simple Process. *Materials Research Society Symposia Proceedings*, **2004**, 828, 313