

# Prabhat Verma

## List of Publications by Year in descending order

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70  
papers

3,421  
citations

159358

30  
h-index

138251

58  
g-index

72  
all docs

72  
docs citations

72  
times ranked

3987  
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasmonics for near-field nano-imaging and superlensing. <i>Nature Photonics</i> , 2009, 3, 388-394.	15.6	705
2	Tip-Enhanced Raman Spectroscopy: Technique and Recent Advances. <i>Chemical Reviews</i> , 2017, 117, 6447-6466.	23.0	308
3	Subwavelength colour imaging with a metallic nanolens. <i>Nature Photonics</i> , 2008, 2, 438-442.	15.6	206
4	Pressure-assisted tip-enhanced Raman imaging at a resolution of a few nanometres. <i>Nature Photonics</i> , 2009, 3, 473-477.	15.6	192
5	Subnanometric Near-Field Raman Investigation in the Vicinity of a Metallic Nanostructure. <i>Physical Review Letters</i> , 2009, 102, 186101.	2.9	103
6	Experimental Identification of Chemical Effects in Surface Enhanced Raman Scattering of 4-Aminothiophenol. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7515-7520.	1.5	100
7	Acoustic vibrations of semiconductor nanocrystals in doped glasses. <i>Physical Review B</i> , 1999, 60, 5778-5785.	1.1	95
8	Nano-scale analysis of graphene layers by tip-enhanced near-field Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 1434-1440.	1.2	95
9	Raman-scattering probe of anharmonic effects in GaAs. <i>Physical Review B</i> , 1995, 51, 16660-16667.	1.1	88
10	Temporal Fluctuation of Tip-Enhanced Raman Spectra of Adenine Molecules. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9460-9464.	1.5	84
11	Optical antennas with multiple plasmonic nanoparticles for tip-enhanced Raman microscopy. <i>Nanoscale</i> , 2015, 7, 17424-17433.	2.8	79
12	Visualization of localized strain of a crystalline thin layer at the nanoscale by tip-enhanced Raman spectroscopy and microscopy. <i>Journal of Raman Spectroscopy</i> , 2007, 38, 684-696.	1.2	78
13	Near-field Raman scattering investigation of tip effects on C <sub>60</sub> molecules. <i>Physical Review B</i> , 2006, 73, .	1.1	75
14	Nano-imaging through tip-enhanced Raman spectroscopy: Stepping beyond the classical limits. <i>Laser and Photonics Reviews</i> , 2010, 4, 548-561.	4.4	70
15	Diameter-selective near-field Raman analysis and imaging of isolated carbon nanotube bundles. <i>Applied Physics Letters</i> , 2006, 88, 093125.	1.5	58
16	Temperature dependence of optical phonon lifetimes in ZnSe. <i>Physica B: Condensed Matter</i> , 1996, 226, 331-337.	1.3	57
17	Tip-Enhanced Raman Investigation of Extremely Localized Semiconductor-to-Metal Transition of a Carbon Nanotube. <i>Physical Review Letters</i> , 2013, 111, 216101.	2.9	57
18	Raman studies on GaAs <sub>1-x</sub> Bi <sub>x</sub> and InAs <sub>1-x</sub> Bi <sub>x</sub> . <i>Journal of Applied Physics</i> , 2001, 89, 1657.	1.1	56

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19	Highly efficient plasmonic tip design for plasmon nanofocusing in near-field optical microscopy. <i>Nanoscale</i> , 2016, 8, 5634-5640.	2.8	55
20	Probing nanoscale defects and wrinkles in MoS <sub>2</sub> by tip-enhanced Raman spectroscopic imaging. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	55
21	Quantitative Analysis of Polarization-Controlled Tip-Enhanced Raman Imaging through the Evaluation of the Tip Dipole. <i>ACS Nano</i> , 2014, 8, 10187-10195.	7.3	53
22	Confinement of enhanced field investigated by tip-sample gap regulation in tapping-mode tip-enhanced Raman microscopy. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	51
23	Nanoanalysis of crystalline properties of GaN thin film using tip-enhanced Raman spectroscopy. <i>Applied Physics Letters</i> , 2007, 90, 061906.	1.5	46
24	Confinement effects on the electronic and vibronic properties of CdS <sub>[sub 0.65]</sub> Se <sub>[sub 0.35]</sub> nanoparticles grown by thermal annealing. <i>Journal of Applied Physics</i> , 2000, 88, 4109.	1.1	39
25	Superhydrophobic SERS Substrates Based on Silver-Coated Reduced Graphene Oxide Gratings Prepared by Two-Beam Laser Interference. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 27059-27065.	4.0	38
26	Oxygen-assisted shape control in polyol synthesis of silver nanocrystals. <i>Chemical Physics Letters</i> , 2008, 462, 92-95.	1.2	37
27	Polarization-Controlled Raman Microscopy and Nanoscopy. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1295-1300.	2.1	35
28	Far-field free tapping-mode tip-enhanced Raman microscopy. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	35
29	White nanolight source for optical nanoimaging. <i>Science Advances</i> , 2020, 6, eaba4179.	4.7	32
30	Manipulating full photonic band gaps in two dimensional birefringent photonic crystals. <i>Optics Express</i> , 2008, 16, 14812.	1.7	30
31	Molecular orientation analysis of organic thin films by <i>z</i> -polarization Raman microscope. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 2029-2034.	1.2	30
32	Validity of the V parameter for photonic quasi-crystal fibers. <i>Optics Letters</i> , 2010, 35, 1064.	1.7	28
33	Micro-Raman Characterization of Starting Material for Traveling Liquidus Zone Growth Method. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 991-995.	0.8	25
34	Tunable plasmon resonances in a metallic nanotip-film system. <i>Nanoscale</i> , 2012, 4, 5931.	2.8	23
35	Size analysis of nanocrystals in semiconductor doped silicate glasses with anomalous small-angle x ray and Raman scattering. <i>Journal of Applied Physics</i> , 2000, 88, 1873-1879.	1.1	22
36	Tip-Enhanced Raman Spectroscopy of Multiwalled Carbon Nanotubes through D-Band Imaging: Implications for Nanoscale Analysis of Interwall Interactions. <i>ACS Applied Nano Materials</i> , 2020, 3, 6001-6008.	2.4	22

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37	The influence of residual strain on Raman scattering in In <sub>x</sub> Ga <sub>1-x</sub> As single crystals. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 91-92, 66-69.	1.7	21
38	Laser power dependence of the photoluminescence from CdSxSe1-xnanoparticles in glass. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 1097-1110.	0.7	19
39	Probing stacking configurations in a few layered MoS <sub>2</sub> by low frequency Raman spectroscopy. <i>Scientific Reports</i> , 2020, 10, 21227.	1.6	18
40	Evaluation of the interlayer interactions of few layers of graphene. <i>Chemical Physics Letters</i> , 2013, 557, 114-117.	1.2	17
41	Ultrastable tip-enhanced hyperspectral optical nanoimaging for defect analysis of large-sized WS <sub>2</sub> layers. <i>Science Advances</i> , 2022, 8, .	4.7	16
42	Single-mode operation regime for 12-fold index-guiding quasicrystal optical fibers. <i>Applied Physics B: Lasers and Optics</i> , 2010, 100, 499-503.	1.1	14
43	Orientation analysis of pentacene molecules in organic field-effect transistor devices using polarization-dependent Raman spectroscopy. <i>Scientific Reports</i> , 2019, 9, 15149.	1.6	13
44	One-side metal-coated pyramidal cantilever tips for highly reproducible tip-enhanced Raman spectroscopy. <i>Nanotechnology</i> , 2020, 31, 335207.	1.3	13
45	Imaging and spectroscopy through plasmonic nano-probe. <i>EPJ Applied Physics</i> , 2009, 46, 20101.	0.3	11
46	Optical Nano-Imaging of Materials: Peeping Through Tip-Enhanced Raman Scattering. <i>Chimia</i> , 2006, 60, 770-776.	0.3	9
47	Active Control of the Oxidization of a Silicon Cantilever for the Characterization of Silicon-based Semiconductors. <i>Chemistry Letters</i> , 2008, 37, 122-123.	0.7	8
48	Halide-ion-assisted increase of surface-enhanced hyper-Raman scattering: a clear observation of the chemical effect. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 119-120.	1.2	8
49	Subnanometric stabilization of plasmon-enhanced optical microscopy. <i>Nanotechnology</i> , 2012, 23, 205503.	1.3	8
50	Optimization of s-Polarization Sensitivity in Apertureless Near-Field Optical Microscopy. <i>International Journal of Optics</i> , 2012, 2012, 1-6.	0.6	8
51	Raman Spectroscopic Studies of Dinaphthothienothiophene (DNNT). <i>Materials</i> , 2019, 12, 615.	1.3	8
52	Broadband Plasmon Nanofocusing: Comprehensive Study of Broadband Nanoscale Light Source. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6378-6386.	1.5	7
53	Direct Evidence of Chemical Contribution to Surface-enhanced Hyper-Raman Scattering. <i>Applied Physics Express</i> , 0, 1, 092401.	1.1	6
54	Anharmonic Effects in Single-Walled Carbon Nanotubes Analyzed through Low-Temperature Raman Imaging. <i>Journal of Physical Chemistry C</i> , 2020, 124, 6922-6928.	1.5	6

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55	Raman Spectroscopic Nanoimaging of Optical Fields of Metal Nanostructures with a Chemically Modified Metallic Tip. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20397-20404.	1.5	6
56	Label-free Raman mapping of saturated and unsaturated fatty acid uptake, storage, and return toward baseline levels in macrophages. <i>Analyst</i> , The, 2021, 146, 1268-1280.	1.7	5
57	Excitonic effect in resonant Raman scattering by 2LO-phonon in CdS and ZnSe. <i>Physica B: Condensed Matter</i> , 1999, 271, 1-6.	1.3	4
58	Modeling of Strain Induced by Compositional Variation in Wafer-Shaped Bulk Mixed Crystals. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 5469-5476.	0.8	4
59	Tapered arrangement of metallic nanorod chains for magnified plasmonic nanoimaging. <i>Scientific Reports</i> , 2019, 9, 2656.	1.6	4
60	Probing inter-molecular interactions of dinaphthothienothiophene (DNTT) molecules in a transistor device using low-frequency Raman spectroscopy. <i>Applied Physics Express</i> , 2020, 13, 022010.	1.1	4
61	Phonon sidebands of electronic transitions in Li-doped CdS. <i>Physical Review B</i> , 1999, 59, 15748-15752.	1.1	3
62	Strain-Induced MI Transition in n-Si and n-Ge: Physical Mechanisms and Transport Phenomena. <i>Physica Status Solidi (B): Basic Research</i> , 2001, 223, 519-523.	0.7	3
63	Temporally dynamic photopolymerization of $C_{60}$ encapsulated in single-walled carbon nanotubes. <i>Physical Review B</i> , 2010, 81, .	1.1	3
64	Plasmonic transfer of near-field light from subwavelength objects through a gold-nanorod chain. <i>Applied Physics Express</i> , 2018, 11, 102001.	1.1	3
65	Silver hierarchical structures grown on microstructured silicon in chip for microfluidic integrated catalyst and SERS detector. <i>Chinese Optics Letters</i> , 2015, 13, 102401-102405.	1.3	3
66	Raman scattering probe of ion-implanted and pulse laser annealed GaAs. <i>Journal of Applied Physics</i> , 1996, 79, 3921.	1.1	2
67	Plasmon nanofocusing for the suppression of photodegradation in fluorescence imaging using near-field scanning optical microscopy. <i>Optics Communications</i> , 2021, 497, 127206.	1.0	2
68	Raman Scattering from Wurtzite GaN Bulk Crystal. <i>Materials Science Forum</i> , 2002, 389-393, 1501-1504.	0.3	1
69	Study on polycrystallization in bulk $In_xGa_{1-x}As$ using micro-Raman and photoluminescence. <i>Journal of Crystal Growth</i> , 2004, 263, 125-131.	0.7	1
70	Polarization Raman Imaging of Organic Monolayer Islands for Crystal Orientation Analysis. <i>ACS Omega</i> , 2021, 6, 9520-9527.	1.6	1