

Joydeep Chowdhury

List of Publications by Year in descending order

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86
papers

1,493
citations

304743

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h-index

361022

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86
all docs

86
docs citations

86
times ranked

1600
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon Dots: A Mystic Star in the World of Nanoscience. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-19.	2.7	83
2	Surface enhanced Raman scattering of 2,2- ϵ^2 biquinoline adsorbed on colloidal silver particles. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2000, 56, 2107-2115.	3.9	80
3	Hierarchical Gold Flower with Sharp Tips from Controlled Galvanic Replacement Reaction for High Surface Enhanced Raman Scattering Activity. <i>Journal of Physical Chemistry C</i> , 2012, 116, 24301-24313.	3.1	77
4	Adsorptive parameters and influence of hot geometries on the SER(R) S spectra of methylene blue molecules adsorbed on gold nanocolloidal particles. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 451-461.	2.5	64
5	Concentration-dependent surface-enhanced Raman scattering of 2-benzoylpyridine adsorbed on colloidal silver particles. <i>Journal of Colloid and Interface Science</i> , 2004, 277, 121-127.	9.4	61
6	Dopamine Molecules on Au _{core} @Ag _{shell} Bimetallic Nanocolloids: Fourier Transform Infrared, Raman, and Surface-Enhanced Raman Spectroscopy Study Aided by Density Functional Theory. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6989-7002.	3.1	60
7	pH-Dependent Surface-Enhanced Raman Scattering of 8-Hydroxy Quinoline Adsorbed on Silver Hydrosol. <i>Journal of Colloid and Interface Science</i> , 2000, 228, 372-378.	9.4	50
8	Adsorption of 4-Methyl-4H-1,2,4-triazole-3-thiol Molecules on Silver Nanocolloids: FT-IR, Raman, and Surface-Enhanced Raman Scattering Study Aided by Density Functional Theory. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10049-10061.	3.1	47
9	Investigations on the interactions of aurintricarboxylic acid with bovine serum albumin: Steady state/time resolved spectroscopic and docking studies. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2011, 102, 11-19.	3.8	46
10	A pH dependent surface-enhanced Raman scattering study of hypoxanthine. <i>Journal of Raman Spectroscopy</i> , 2000, 31, 427-431.	2.5	45
11	Binding Interaction of Juglone with Lysozyme: Spectroscopic Studies Aided by In Silico Calculations. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2019, 193, 89-99.	3.8	38
12	Understanding the Enhancement Mechanisms in the Surface-Enhanced Raman Spectra of the 1,10-Phenanthroline Molecule Adsorbed on a Au@Ag Bimetallic Nanocolloid. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10497-10509.	3.1	37
13	Adsorption of 2-Aminobenzothiazole on Colloidal Silver Particles: An Experimental and Theoretical Surface-Enhanced Raman Scattering Study. <i>Journal of Physical Chemistry B</i> , 2005, 109, 12861-12867.	2.6	35
14	Experimental and Theoretical Surface Enhanced Raman Scattering Study of 2-Amino-4-methylbenzothiazole Adsorbed on Colloidal Silver Particles. <i>Journal of Physical Chemistry B</i> , 2005, 109, 22536-22544.	2.6	33
15	Concentration and pH dependent SERS spectra of sulfanilic acid sodium salt on colloidal silver particles. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 944-951.	2.5	33
16	Near-Field Response on the Far-Field Wavelength-Scanned Surface-Enhanced Raman Spectroscopic Study of Methylene Blue Adsorbed on Gold Nanocolloidal Particles. <i>Journal of Physical Chemistry C</i> , 2018, 122, 10981-10991.	3.1	33
17	Concentration-dependent surface-enhanced resonance Raman scattering of a porphyrin derivative adsorbed on colloidal silver particles. <i>Journal of Colloid and Interface Science</i> , 2003, 263, 318-326.	9.4	31
18	Exploration of Electrostatic Field Force in Surface-Enhanced Raman Scattering: An Experimental Investigation Aided by Density Functional Calculations. <i>Journal of Physical Chemistry C</i> , 2008, 112, 17862-17876.	3.1	31

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19	The tuning of metal enhanced fluorescence for sensing applications. Dalton Transactions, 2014, 43, 1032-1047.	3.3	31
20	Adsorption of 3-Thiophene Carboxylic Acid on Silver Nanocolloids: FTIR, Raman, and SERS Study Aided by Density Functional Theory. Journal of Physical Chemistry C, 2011, 115, 14309-14324.	3.1	30
21	Concentration-Dependent Orientational Changes of 2-Amino-2-thiazoline Molecule Adsorbed on Silver Nanocolloidal Surface Investigated by SERS and DFT. Journal of Physical Chemistry C, 2008, 112, 227-239.	3.1	29
22	A two-component hydrogelator from citrazinic acid and melamine: synthesis, intriguing role of reaction parameters and iodine adsorption study. CrystEngComm, 2015, 17, 8119-8129.	2.6	26
23	Adsorption of 2-amino-6-methylbenzothiazole on colloidal silver particles: Quantum chemical calculations and surface enhanced Raman scattering study. Chemical Physics, 2006, 330, 172-183.	1.9	22
24	Genesis of Enhanced Raman Bands in SERS Spectra of 2-Mercaptoimidazole: FTIR, Raman, DFT, and SERS. Journal of Physical Chemistry A, 2012, 116, 10934-10947.	2.5	22
25	Adsorption of 3- and 4-benzoylpyridine on colloidal silver particles: a surface-enhanced Raman scattering study. Journal of Raman Spectroscopy, 2004, 35, 1023-1033.	2.5	21
26	Infused self-assembly on Langmuir-Blodgett Film: Fabrication of highly efficient SERS active substrates with controlled plasmonic aggregates. Journal of Raman Spectroscopy, 2019, 50, 330-344.	2.5	20
27	How the Charge Transfer (CT) Contributions Influence the SERS Spectra of Molecules? A Retrospective from the View of Albrecht's and Herzberg-Teller Contributions. Applied Spectroscopy Reviews, 2015, 50, 240-260.	6.7	19
28	Silver coated gold nanocolloids entrapped in organized Langmuir-Blodgett Film of stearic acid: Potential evidence of a new SERS active substrate. Applied Surface Science, 2016, 362, 364-373.	6.1	18
29	Surface-Enhanced Raman Scattering of Rhodamine 123 in Silver Hydrosols and in Langmuir-Blodgett Films on Silver Islands. Journal of Colloid and Interface Science, 2001, 235, 317-324.	9.4	16
30	IR, Raman and SERS spectra of 3,5-dinitrosalicylic acid. Journal of Raman Spectroscopy, 2007, 38, 323-331.	2.5	16
31	Vibrational dynamics and structural investigation of 2,2'-dipyridylketone using Raman, IR and UV-visible spectroscopy aided by ab initio and density functional theory calculation. Journal of Chemical Physics, 2008, 128, 144507.	3.0	16
32	Fabrication of SERS active Langmuir-Blodgett Film substrate for screening human cancer cell lines: Experimental observations supported by multivariate data analyses. Sensors and Actuators B: Chemical, 2019, 299, 126962.	7.8	15
33	Deciphering the near-field response with the far-field wavelength-scanned SERS spectra of 4-mercaptopyridine adsorbed on gold nanocolloidal particles entrapped in Langmuir Reverse Schaefer film of 5CB liquid crystal molecules. Physical Chemistry Chemical Physics, 2020, 22, 8719-8729.	2.8	15
34	A pH dependent Raman and surface enhanced Raman spectroscopic studies of citrazinic acid aided by theoretical calculations. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 169, 108-115.	3.9	14
35	Probing blood plasma samples for the detection of diabetes using SERS aided by PCA and LDA multivariate data analyses. New Journal of Chemistry, 2021, 45, 2670-2682.	2.8	14
36	Nonparametric depth and quantile regression for functional data. Bernoulli, 2019, 25, .	1.3	13

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37	Implications of solid phase interaction mechanisms on momentum, heat and solute transport in semi-solid materials processing. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 2692-2703.	4.8	11
38	Charge transfer mechanism and the adsorptive stance of methylene blue on gold nanocolloids: a visâ€œAâ€œvis aftermath. <i>Journal of Raman Spectroscopy</i> , 2017, 48, 38-45.	2.5	11
39	Convergence rates for kernel regression in infinite-dimensional spaces. <i>Annals of the Institute of Statistical Mathematics</i> , 2020, 72, 471-509.	0.8	11
40	Sustained and improved enzymatic activity of trypsin immobilized in the Langmuir Blodgett film of DPPC: A rapid enzyme sensor for the detection of Azocasein. <i>Materials Chemistry and Physics</i> , 2020, 243, 122647.	4.0	11
41	Exploring the pH dependent SERS spectra of 2-mercaptoimidazole molecule adsorbed on silver nanocolloids in the light of Albrechtâ€™s â€œAâ€œ-term and Herzbergâ€™Teller charge transfer contribution. <i>Journal of Colloid and Interface Science</i> , 2013, 399, 33-45.	9.4	10
42	Adsorption and trace detection of pharmacologically significant 5-methylthio-1, 3, 4-thiadiazole-2-thiol molecule adsorbed on silver nanocolloids and understanding the role of Albrechtâ€™s â€œAâ€œ and Herzbergâ€™Teller contributions in the SERS spectra. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015, 135, 935-946.	3.9	10
43	Effects of surface topography on SERS response: Correlating nanoscopy with spectroscopy. <i>Applied Surface Science</i> , 2018, 439, 1-10.	6.1	10
44	Conformational Preferences of Ethyl Propionate Molecule: Raman, Temperature Dependent FTIR Spectroscopic Study Aided by ab Initio Quantum Chemical and Carâ€™Parrinello Molecular Dynamics Simulation Studies. <i>Journal of Physical Chemistry A</i> , 2013, 117, 4838-4850.	2.5	9
45	How hottest geometries and adsorptive parameters influence the SER(R)S spectra of Methylene Blue molecules adsorbed on nanocolloidal gold particles of varied sizes?. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015, 151, 796-806.	3.9	9
46	Selfâ€™assembly of silver nanocolloids in the Langmuirâ€™Blodgett Film of stearic acid: Evidence of an efficient SERS sensing platform. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 168-176.	2.5	9
47	Sensing of Different Human Telomeric G-Quadruplex DNA Topologies by Natural Alkaloid Alloctyopine Using Spectroscopic Techniques. <i>Journal of Physical Chemistry B</i> , 2018, 122, 10279-10290.	2.6	9
48	SERS active substrates of gold nanoparticles embedded in the pool of 5-CB liquid crystal molecules organized in Langmuirâ€™Reverse Schaefer films: A facile fabrication route to make the topological defects useful. <i>Applied Surface Science</i> , 2019, 484, 1263-1273.	6.1	9
49	Adsorption of 2-aminobenzothiazole on nano-colloidal silver surface: A concentration and time dependent SERS study aided by density functional theory. <i>Vibrational Spectroscopy</i> , 2010, 52, 85-92.	2.2	8
50	The vibrational assignment of phenanthridine molecule based on normal coordinate analysis and DFT. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1878-1889.	2.5	7
51	Relaxation of the excited N-(2-hydroxy benzylidene) aniline molecule: An ab initio and TD DFT study. <i>Journal of Chemical Sciences</i> , 2010, 122, 857-865.	1.5	7
52	Directional growth of Ag nanorod from polymeric silver cyanide: A potential substrate for concentration dependent SERS signal enhancement leading to melamine detection. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 183, 402-407.	3.9	7
53	Structural and electronic properties of wide band gap charge transfer insulator Hg ₂ Cl ₂ : Insights from the first-principle calculations. <i>Materials Chemistry and Physics</i> , 2022, 276, 125379.	4.0	7
54	Vibrational analysis of the conformers and understanding the genesis of the internal rotational barriers of Isobutyl Cyanide molecule. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2012, 96, 837-847.	3.9	6

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55	Targeting G-quadruplex DNA and B-DNA with a natural alkaloid: a comparative spectroscopic study. RSC Advances, 2016, 6, 109846-109856.	3.6	6
56	Physics behind the Barrier to Internal Rotation of an Acetyl Chloride Molecule: A Combined Approach from Density Functional Theory, Car-Parrinello Molecular Dynamics, and Time-Resolved Wavelet Transform Theory. ACS Omega, 2018, 3, 6794-6803.	3.5	6
57	Interaction of KMP-11 and its mutants with ionic liquid choline dihydrogen phosphate: Multispectroscopic studies aided by docking and molecular dynamics simulations. Journal of Molecular Liquids, 2020, 301, 112475.	4.9	6
58	Role of gold nanocolloids on the photostability of 2-hydroxy-5-methyl benzaldehyde molecule and evidence of excited state intramolecular proton transfer process aided by DFT, non-adiabatic Ab Initio molecular dynamics simulations. Journal of Luminescence, 2017, 188, 378-387.	3.1	5
59	Existence of dimeric hydroxylamine-O-sulfonic acid: Experimental observations aided by ab initio, DFT, Car-Parrinello and Born-Oppenheimer on the fly dynamics. Chemical Physics Letters, 2019, 732, 136645.	2.6	5
60	Understanding the structure and conformation of bovine hemoglobin in presence of the drug hydroxyurea: multi-spectroscopic studies supported by docking and molecular dynamics simulation. Journal of Biomolecular Structure and Dynamics, 2021, 39, 3533-3547.	3.5	5
61	How SERS responses of probe molecules depend on topographies of the substrates? A vis-À-vis exploration. Vibrational Spectroscopy, 2020, 107, 103031.	2.2	5
62	Two-dimensional Raman correlation analysis of benzophenone. Journal of Molecular Structure, 2009, 929, 200-206.	3.6	4
63	Ab initio and DFT study to understand the physics behind the conformational barriers of isobutyl cyanide molecule. Indian Journal of Physics, 2013, 87, 855-863.	1.8	4
64	Prototropic tautomerism of 4-Methyl 1,2,4-Triazole-3-Thione molecule in solvent water medium: DFT and Car-Parrinello molecular dynamics study. Chemical Physics, 2015, 463, 30-37.	1.9	4
65	Time Resolved Spectroscopic Studies on a Novel Synthesized Photo-Switchable Organic Dyad and Its Nanocomposite Form in Order to Develop Light Energy Conversion Devices. Journal of Nanoscience and Nanotechnology, 2015, 15, 5775-5784.	0.9	4
66	Exploring the binding interactions of janus green blue with serum albumins from spectroscopic and calorimetric studies aided by <i>in silico</i> calculations. Journal of Biomolecular Structure and Dynamics, 2022, 40, 5328-5344.	3.5	4
67	Two-dimensional correlation spectroscopy in analyzing the excitation wavelength dependence of ring breathing mode of 2,2'-dipyridylketone. Chemical Physics Letters, 2008, 464, 87-91.	2.6	3
68	Comparative studies by using spectroscopic tools on the charge transfer (CT) band of a novel synthesized short-chain dyad in isotropic media and in a gel (P123). Chemical Physics Letters, 2009, 481, 142-148.	2.6	3
69	Origins of threefold rotational barriers of molecule containing two methyl groups: Ethyl propionate as paradigm. Chemical Physics Letters, 2014, 612, 89-96.	2.6	3
70	Self-assembly of metal nanocolloids entrapped in Langmuir Blodgett Film templates: Evidence of efficient SERS sensing platforms. Materials Today: Proceedings, 2018, 5, 10071-10076.	1.8	3
71	Spectroscopic Investigation of Electron-Releasing Functional Groups Substituted <i>N</i> - <i>iso</i> -Butyl, <i>S</i> -2-Nitro-1-Phenylethyl Dithiocarbamate - A DFT Approach. Polycyclic Aromatic Compounds, 2022, 42, 6917-6931.	2.6	3
72	Pressure induced structural phase transitions of technologically significant mercurous chloride at room temperature: An account from first-principle DFT and Born-Oppenheimer molecular dynamics studies. Journal of Applied Physics, 2021, 130, .	2.5	3

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73	Attempts to recognize the two different isomers of a photoswitchable dyad, 1-(4-bromo-phenyl)-3-(2-methoxy-naphthalen-1-yl)-propenone, by using TiO ₂ nanoparticles. <i>Chemical Physics Letters</i> , 2009, 478, 215-223.	2.6	2
74	Mode of anchoring of ZnO nanoparticles to molecules having both -COOH and -NH functionalities. <i>Journal of Molecular Structure</i> , 2010, 964, 9-17.	3.6	2
75	Excited Electronic States and Raman Spectra of 2-Benzoylpyridine. <i>Applied Spectroscopy</i> , 2013, 67, 1447-1462.	2.2	2
76	Resonance Raman Spectroscopy. , 2018, , 147-164.		2
77	Nonparametric Quantile Regression for Banach-Valued Response. , 2017, , 225-251.		2
78	Steady-state and time-resolved spectroscopic investigations on intramolecular electron transfer processes within a synthesized methoxynaphthalene dyad by using a nematic liquid crystal medium. <i>Journal of Luminescence</i> , 2010, 130, 932-940.	3.1	1
79	Nature of charge separation and recombination processes within an organic dyad having short spacer. <i>Journal of Luminescence</i> , 2010, 130, 1924-1934.	3.1	1
80	Influence of Temperature on the Rotameric Forms of the Propyl Acetate Molecule: Raman and FTIR Spectroscopic Studies Aided by ab Initio and Car-Parrinello Molecular Dynamics Simulations. <i>Journal of Physical Chemistry A</i> , 2015, 119, 8062-8075.	2.5	1
81	Spectroscopic and Raman excitation profile studies of 3-benzoylpyridine. <i>Indian Journal of Physics</i> , 2017, 91, 779-802.	1.8	1
82	Decoding the topographical features of more realistic SERS active substrates in presence of the probe molecules from statistical considerations: An in-depth study bridging Microscopy with Spectroscopy. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 628, 127319.	4.7	1
83	Nonradiative inter- and intramolecular energy transfer from the aromatic donor anisole to a synthesized photoswitchable acceptor system. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2010, 75, 647-655.	3.9	0
84	Optimizing the SERS activity of 1,10 Phenanthroline molecule adsorbed on Au@Ag core-shell nano colloid. , 2010, , .		0
85	Concentration and pH-Dependent SERS Study of 2-Mercaptoimidazole Adsorbed on Colloidal Silver Nano Particles. , 2010, , .		0
86	Adsorption of Dyes on nanocolloidal gold surfaces: The key towards understanding the mechanism of SERS. <i>Materials Today: Proceedings</i> , 2018, 5, 10042-10046.	1.8	0