Lei Chen

List of Publications by Year
in descending order

109 papers	2,659 citations	126907 33 h-index	254184 43 g-index
109 all docs	109 docs citations	109 times ranked	2793 citing authors

#	Article	IF	Citations
1	Recent Development of SERS Technology: Semiconductor-Based Study. ACS Omega, 2019, 4, 20101-20108.	3.5	105
2	Multiplex Immunochips for High-Accuracy Detection of AFP-L3% Based on Surface-Enhanced Raman Scattering: Implications for Early Liver Cancer Diagnosis. Analytical Chemistry, 2017, 89, 8877-8883.	6.5	88
3	Metalâ€“Semiconductor Contacts Induce the Charge-Transfer Mechanism of Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2011, 115, 18378-18383.	3.1	67
4	Preparation of a Superhydrophobic and Peroxidase-like Activity Array Chip for H₂O₂ Sensing by Surface-Enhanced Raman Scattering. ACS Applied Materials & Interfaces, 2015, 7, 23472-23480.	8.0	59
5	Magnetic Titanium Dioxide Nanocomposites for Surfaceâ€Enhanced Resonance Raman Spectroscopic Determination and Degradation of Toxic Anilines and Phenols. Angewandte Chemie - International Edition, 2014, 53, 2481-2484.	13.8	57
6	Plasmonic-induced SERS enhancement of shell-dependent Ag@Cu₂O coreâ€“shell nanoparticles. RSC Advances, 2017, 7, 16553-16560.	3.6	55
7	Siteâ€specific deposition of Ag nanoparticles on ZnO nanorod arrays via galvanic reduction and their SERS applications. Journal of Raman Spectroscopy, 2010, 41, 907-913.	2.5	54
8	Enhanced Catalytic Reduction of 4-Nitrophenol Driven by Fe3O4-Au Magnetic Nanocomposite Interface Engineering: From Facile Preparation to Recyclable Application. Nanomaterials, 2018, 8, 353.	4.1	52
9	Coomassie Brilliant Dyes as Surface-Enhanced Raman Scattering Probes for Proteinâ^'Ligand Recognitions. Analytical Chemistry, 2010, 82, 4102-4106.	6.5	50
10	Detect, remove and re-use: Sensing and degradation pesticides via 3D tilted ZMRs/Ag arrays. Journal of Hazardous Materials, 2020, 391, 122222.	12.4	50
11	Surfaceâ€enhanced Raman scattering of molecules adsorbed on Coâ€doped ZnO nanoparticles. Journal of Raman Spectroscopy, 2012, 43, 61-64.	2.5	48
12	Design of Hybrid Nanostructural Arrays to Manipulate SERS-Active Substrates by Nanosphere Lithography. ACS Applied Materials & Interfaces, 2017, 9, 7710-7716.	8.0	47
13	ZnO nanoparticles on MoS2 microflowers for ultrasensitive SERS detection of bisphenol A. Mikrochimica Acta, 2019, 186, 593.	5.0	47
14	Detection of proteins on Silicaâ€“Silver Coreâ€“Shell substrates by surface-enhanced Raman spectroscopy. Journal of Colloid and Interface Science, 2011, 360, 482-487.	9.4	45
15	Multiple detection of proteins by SERS-based immunoassay with core shell magnetic gold nanoparticles. Vibrational Spectroscopy, 2014, 72, 44-49.	2.2	44
16	SERS polarization-dependent effects for an ordered 3D plasmonic tilted silver nanorod array. Nanoscale, 2018, 10, 8106-8114.	5.6	44
17	Controllable Charge Transfer in Ag-TiO2 Composite Structure for SERS Application. Nanomaterials, 2017, 7, 159.	4.1	41
18	Eco-friendly seeded Fe₃O₄-Ag nanocrystals: a new type of highly efficient and low cost catalyst for methylene blue reduction. RSC Advances, 2018, 8, 2209-2218.	3.6	41

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19	Interfacial Charge-Transfer Effects in Semiconductorâ€“Moleculeâ€“Metal Structures: Influence of Contact Variation. Journal of Physical Chemistry C, 2012, 116, 14701-14710.	3.1	40
20	One-step detection of melamine in milk by hollow gold chip based on surface-enhanced Raman scattering. Talanta, 2014, 122, 80-84.	5.5	40
21	Rational synthesis and tailored optical and magnetic characteristics of Fe3O4â€“Au composite nanoparticles. Journal of Materials Science, 2017, 52, 10163-10174.	3.7	40
22	Charge Transfer in an Ordered Ag/Cu₂S/4-MBA System Based on Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2018, 122, 5599-5605.	3.1	40
23	AgNPs decorated Mg-doped ZnO heterostructure with dramatic SERS activity for trace detection of food contaminants. Journal of Materials Chemistry C, 2019, 7, 8199-8208.	5.5	40
24	Recyclable Magnetic MIP-Based SERS Sensors for Selective, Sensitive, and Reliable Detection of Paclobutrazol Residues in Complex Environments. ACS Sustainable Chemistry and Engineering, 2020, 8, 14549-14556.	6.7	39
25	Ordered Nanocap Array Composed of SiO₂-Isolated Ag Islands as SERS Platform. Langmuir, 2014, 30, 15285-15291.	3.5	38
26	Magnetic imprinted surface enhanced Raman scattering (MI-SERS) based ultrasensitive detection of ciprofloxacin from a mixed sample. Analytical Methods, 2014, 6, 1627-1632.	2.7	38
27	Enhanced catalyst activity by decorating of Au on Ag@Cu2O nanoshell. Applied Surface Science, 2018, 435, 72-78.	6.1	38
28	Multiphonon Resonant Raman Scattering and Photoinduced Charge-Transfer Effects at ZnOâ€“Molecule Interfaces. Journal of Physical Chemistry C, 2012, 116, 26908-26918.	3.1	37
29	Facile SERS-active chip (PS@Ag/SiO2/Ag) for the determination of HCC biomarker. Sensors and Actuators B: Chemical, 2018, 272, 34-42.	7.8	37
30	Detection of the potential tumor marker of AFP using surfaceâ€enhanced Raman scatteringâ€based immunoassay. Journal of Raman Spectroscopy, 2013, 44, 1649-1653.	2.5	36
31	Carrier Density-Dependent Localized Surface Plasmon Resonance and Charge Transfer Observed by Controllable Semiconductor Content. Journal of Physical Chemistry Letters, 2018, 9, 6047-6051.	4.6	36
32	Labelâ€Free Indirect Immunoassay Using an Avidinâ€Induced Surfaceâ€Enhanced Raman Scattering Substrate. Small, 2011, 7, 316-320.	10.0	35
33	A SERSâ€active enzymatic product used for the quantification of diseaseâ€related molecules. Journal of Raman Spectroscopy, 2014, 45, 75-81.	2.5	35
34	Site-selective growth of Ag nanoparticles controlled by localized surface plasmon resonance of nanobowl arrays. Nanoscale, 2019, 11, 6576-6583.	5.6	34
35	Predictive Value of the Surface-Enhanced Resonance Raman Scattering-Based MTT Assay: A Rapid and Ultrasensitive Method for Cell Viability in Situ. Analytical Chemistry, 2013, 85, 7361-7368.	6.5	33
36	Facile synthesis of Fe₃O₄@Au coreâ€“shell nanocomposite as a recyclable magnetic surface enhanced Raman scattering substrate for thiram detection. Nanotechnology, 2019, 30, 465703.	2.6	33

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37	Design of Cu2O-Au composite microstructures for surface-enhanced Raman scattering study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 507, 96-102.	4.7	32
38	Fundamental Formation of Three-Dimensional Fe₃O₄ Microcrystals and Practical Application in Anchoring Au as Recoverable Catalyst for Effective Reduction of 4-Nitrophenol. Industrial & Engineering Chemistry Research, 2019, 58, 15151-15161.	3.7	31
39	Nanohoneycomb Surface-Enhanced Raman Spectroscopy-Active Chip for the Determination of Biomarkers of Hepatocellular Carcinoma. ACS Applied Materials & Interfaces, 2019, 11, 44617-44623.	8.0	31
40	Quantitative evaluation of proteins with bicinchoninic acid (BCA): resonance Raman and surface-enhanced resonance Raman scattering-based methods. Analyst, The, 2012, 137, 5834.	3.5	29
41	Detection and Identification of Estrogen Based on Surface-Enhanced Resonance Raman Scattering (SERRS). Molecules, 2018, 23, 1330.	3.8	29
42	SERS study of surface plasmon resonance induced carrier movement in Au@Cu 2 O core-shell nanoparticles. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 189, 608-612.	3.9	28
43	Magnetic assistance highly sensitive protein assay based on surface-enhanced resonance Raman scattering. Journal of Colloid and Interface Science, 2012, 368, 282-286.	9.4	24
44	Mercury species induced frequency-shift of molecular orientational transformation based on SERS. Analyst, The, 2016, 141, 4782-4788.	3.5	24
45	Nanocap array of Au:Ag composite for surface-enhanced Raman scattering. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 152, 461-467.	3.9	24
46	Effects of amount of benzyl ether and reaction time on the shape and magnetic properties of Fe3O4 nanocrystals. Powder Technology, 2017, 319, 53-59.	4.2	24
47	Nickel Nanowires Combined with Surface-Enhanced Raman Spectroscopy: Application in Label-Free Detection of Cytochrome c-Mediated Apoptosis. Analytical Chemistry, 2019, 91, 1213-1216.	6.5	24
48	Modulating Mechanism of the LSPR and SERS in Ag/ITO Film: Carrier Density Effect. Journal of Physical Chemistry Letters, 2021, 12, 7612-7618.	4.6	24
49	Architecture design and applications of nanopatterned arrays based on colloidal lithography. Journal of Applied Physics, 2019, 126, .	2.5	23
50	Antibody-Free Discrimination of Protein Biomarkers in Human Serum Based on Surface-Enhanced Raman Spectroscopy. Analytical Chemistry, 2018, 90, 12342-12346.	6.5	22
51	Highly Efficient, Low-Cost, and Magnetically Recoverable FePtâ€“Ag Nanocatalysts: Towards Green Reduction of Organic Dyes. Nanomaterials, 2018, 8, 329.	4.1	21
52	SERS study of Ag/FeS/4-MBA interface based on the SPR effect. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 219, 147-153.	3.9	21
53	Biomarkers Determination Based on Surface-Enhanced Raman Scattering. Chemosensors, 2020, 8, 118.	3.6	20
54	Size-Dependent Surface-Enhanced Raman Scattering Activity of Ag@Cu_xOS Yolkâ€“Shell Nanostructures: Surface Plasmon Resonance Induced Charge Transfer. Journal of Physical Chemistry C, 2020, 124, 16616-16623.	3.1	20

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55	Ultrasensitive Detection of 1, 4-Bis(4-Vinylpyridyl)Phenylene in a Small Volume of Low Refractive Index Liquid by Surface-Enhanced Raman Scattering-Active Light Waveguide. Applied Spectroscopy, 2004, 58, 414-419.	2.2	19
56	Enhanced semiconductor charge-transfer resonance: Unprecedented oxygen bidirectional strategy. Sensors and Actuators B: Chemical, 2021, 327, 128903.	7.8	19
57	Au/Ag bimetal nanogap arrays with tunable morphologies for surface-enhanced Raman scattering. RSC Advances, 2015, 5, 7454-7460.	3.6	18
58	Improved Charge Transfer and Hot Spots by Doping and Modulating the Semiconductor Structure: A High Sensitivity and Renewability Surface-Enhanced Raman Spectroscopy Substrate. Langmuir, 2019, 35, 8921-8926.	3.5	18
59	SERS effect on the presence and absence of rGO for Ag@Cu2O core-shell. Materials Science in Semiconductor Processing, 2019, 91, 290-295.	4.0	18
60	Photo-Induced Charge Transfer Enhancement for SERS in a SiO‹sub›2‹/sub›â€“Agâ€“Reduced Graphene Oxide System. ACS Applied Materials & Interfaces, 2021, 13, 5699-5705.	8.0	18
61	Surface-Enhanced Raman Scattering (SERS) Active Gold Nanoparticles Decorated on a Porous Polymer Filter. Applied Spectroscopy, 2017, 71, 1543-1550.	2.2	17
62	Charge-Transfer Induced by the Oxygen Vacancy Defects in the Ag/MoO3 Composite System. Nanomaterials, 2021, 11, 1292.	4.1	17
63	SERS detection of proteins on micropatterned proteinâ€mediated sandwich substrates. Journal of Raman Spectroscopy, 2011, 42, 1492-1496.	2.5	16
64	Increasing polarization-dependent SERS effects by optimizing the axial symmetry of plasmonic nanostructures. Applied Surface Science, 2019, 494, 87-93.	6.1	16
65	Carrier dynamic monitoring of a Ï€-conjugated polymer: a surface-enhanced Raman scattering method. Chemical Communications, 2020, 56, 2779-2782.	4.1	16
66	Tunable plasmon properties of Fe2O3@Ag substrate for surface-enhanced Raman scattering. Analytical Methods, 2011, 3, 1622.	2.7	15
67	Simple immersion to prepare a Zn/Ag biomimetic superhydrophobic surface and exploring its applications on SERS. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 467, 224-232.	4.7	15
68	Iron layer-dependent surface-enhanced raman scattering of hierarchical nanocap arrays. Applied Surface Science, 2017, 423, 1124-1133.	6.1	15
69	Bridging the neighbor plasma coupling on curved surface array for early hepatocellular carcinoma detection. Sensors and Actuators B: Chemical, 2020, 309, 127759.	7.8	15
70	Biomagnetic glass beads for protein separation and detection based on surface-enhanced Raman scattering. Analytical Methods, 2012, 4, 1643.	2.7	14
71	Vibrational spectroscopy and density functional theory study of 4-mercaptophenol. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 122, 698-703.	3.9	14
72	Controllable Preparation of SERS-Active Ag-FeS Substrates by a Cosputtering Technique. Molecules, 2019, 24, 551.	3.8	13

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73	New Insight into Charge-Transfer Enhancement for SERS in Cosputtering (Ag)_x(ZnS)_y System: The Carrier Density Effect. Journal of Physical Chemistry C, 2019, 123, 28846-28851.	3.1	12
74	Zincon as resonance Raman probe for quantitative evaluation of proteins. Journal of Raman Spectroscopy, 2011, 42, 1963-1966.	2.5	11
75	Pillar-cap shaped arrays of Ag/SiO2 multilayers after annealing treatment as a SERSâ€"active substrate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 506, 96-103.	4.7	11
76	The mechanism of an enzymatic reaction-induced SERS transformation for the study of enzymeâ€"molecule interfacial interactions. Physical Chemistry Chemical Physics, 2016, 18, 31787-31795.	2.8	11
77	Design of tunable ultraviolet (UV) absorbance by controlling the Ag Al co-sputtering deposition. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 197, 37-42.	3.9	11
78	Increasing local field by interfacial coupling in nanobowl arrays. RSC Advances, 2017, 7, 43671-43680.	3.6	10
79	In Situ Synthesis of Ag@Cu2O-rGO Architecture for Strong Light-Matter Interactions. Nanomaterials, 2018, 8, 444.	4.1	10
80	Disease-related proteins determination based on surface-enhanced Raman spectroscopy. Applied Spectroscopy Reviews, 2019, 54, 856-872.	6.7	10
81	Improved Charge Transfer Contribution by Cosputtering Ag and ZnO. Nanomaterials, 2020, 10, 1455.	4.1	10
82	Probing the charge-transfer of Ag/PEDOT:PSS/4-MBA by surface-enhanced raman scattering. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 239, 118451.	3.9	10
83	Preparation of Reduced-Graphene-Oxide-Supported CoPt and Ag Nanoparticles for the Catalytic Reduction of 4-Nitrophenol. Catalysts, 2021, 11, 1336.	3.5	10
84	Sensitive metal ions (II) determination with resonance Raman method. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 105, 52-56.	3.9	9
85	Highly sensitive determination of iron (III) ion based on phenanthroline probe: Surface-enhanced Raman spectroscopy methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 197, 43-46.	3.9	9
86	Surface-Doped Organic Charge Transfer Cocrystal Heterostructures and Their Variable Dual-Color Light Emission and Propagation. Crystal Growth and Design, 2021, 21, 2699-2710.	3.0	9
87	Enhanced Raman scattering when scatterer molecules located in TiO2/Ag nanojunctions. RSC Advances, 2015, 5, 64235-64239.	3.6	8
88	Quantitative Determination of Iron Ions Based on a Resonance Raman (RR) Probe-Phenanthroline. Analytical Sciences, 2017, 33, 23-27.	1.6	8
89	Quantitative Determination of Total Amino Acids Based on Surface-Enhanced Raman Scattering and Ninhydrin Derivatization. Analytical Sciences, 2017, 33, 53-57.	1.6	8
90	Self-Assembled Ag-Cu2O Nanocomposite Films at Air-Liquid Interfaces for Surface-Enhanced Raman Scattering and Electrochemical Detection of H2O2. Nanomaterials, 2018, 8, 332.	4.1	8

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91	Enhanced Surface-Enhanced Raman Scattering Activity of MoS₂â€“Ag-Reduced Graphene Oxide: Structure-Mediated Excitonic Transition. Journal of Physical Chemistry C, 2021, 125, 23259-23266.	3.1	8
92	Evolution of Micro-structure and Magnetic Properties in L10 CoPt Nanoparticles by Au Addition. Journal of Superconductivity and Novel Magnetism, 2018, 31, 2553-2557.	1.8	7
93	Charge Transfer on the Surface-Enhanced Raman Scattering of Ag/4-MBA/PEDOT:PSS System: Intermolecular Hydrogen Bonding. Chemosensors, 2021, 9, 111.	3.6	7
94	Recyclable, Biocompatible, Magnetic Titanium Dioxide Nanoparticles with Immobilized Enzymes for Biocatalysis. ChemPlusChem, 2013, 78, 1437-1439.	2.8	6
95	Controlling the Growth Locations of Ag Nanoparticles at Nanoscale by Shifting LSPR Hotspots. Nanomaterials, 2019, 9, 1553.	4.1	6
96	Immune recognition construct plasmonic dimer for SERSâ€based bioassay. Journal of Raman Spectroscopy, 2013, 44, 1253-1258.	2.5	5
97	Controlling the 3D Electromagnetic Coupling in Co-Sputtered Agâ€“SiO2 Nanomace Arrays by Lateral Sizes. Nanomaterials, 2018, 8, 493.	4.1	5
98	Vibrational spectroscopy and density functional theory study of 3-[4,5-dimethyl-2-thiazolyl]-2,5-diphenyl-2H-tetrazolium bromide. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 135, 1-6.	3.9	4
99	A Turn-On Resonance Raman Scattering (BCS/Cu+) Sensor for Quantitative Determination of Proteins. Applied Spectroscopy, 2016, 70, 355-362.	2.2	4
100	Surface-enhanced Raman scattering from metal and transition metal nano-caped arrays. Superlattices and Microstructures, 2018, 115, 59-66.	3.1	4
101	Ag Nanotwin-Assisted Grain Growth-Induced by Stress in SiO2/Ag/SiO2 Nanocap Arrays. Nanomaterials, 2018, 8, 436.	4.1	4
102	Damping resonance and refractive index effect on the layer-by-layer sputtering of Ag and Al2O3 on the polystyrene template. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 238, 118430.	3.9	4
103	Subtle vertical structures of porous anodic alumina films for use as waveguides. Nanotechnology, 2017, 28, 185703.	2.6	3
104	Design and Characterization of Ag@Cu2O-rGO Nanocomposite for the p-Nitrophenol Reduction. Catalysts, 2021, 11, 43.	3.5	3
105	Au-MPY/DTNB@SiO 2 SERS nanoprobe for immunosorbent assay. Vibrational Spectroscopy, 2016, 87, 34-39.	2.2	2
106	SERS Immunosensor of Array Units Surrounded by Particles: A Platform for Auxiliary Diagnosis of Hepatocellular Carcinoma. Nanomaterials, 2020, 10, 2090.	4.1	2
107	Preparation of Silver Nanocap Arrays and Their Surfaceâ€enhanced Raman Scattering Activity. Bulletin of the Korean Chemical Society, 2017, 38, 1179-1182.	1.9	1
108	Catalysis of Organic Pollutants Abatement Based on Pt-Decorated Ag@Cu2O Heterostructures. Molecules, 2019, 24, 2721.	3.8	1

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109	Raman Scattering Methods for Monitoring the Electric Properties of the Postannealed Bulk Heterojunction. ACS Applied Energy Materials, 2021, 4, 8360-8367.	5.1	1