

# John R Lombardi

## List of Publications by Year in descending order

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105  
papers

8,279  
citations

57631

44  
h-index

45213

90  
g-index

109  
all docs

109  
docs citations

109  
times ranked

7078  
citing authors

#	ARTICLE	IF	CITATIONS
1	An antigen-targeting assay for Lyme disease: Combining aptamers and SERS to detect the OspA protein. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2022, 41, 102528.	1.7	9
2	Charge-Transfer Resonance and Electromagnetic Enhancement Synergistically Enabling MXenes with Excellent SERS Sensitivity for SARS-CoV-2 S Protein Detection. <i>Nano-Micro Letters</i> , 2021, 13, 52.	14.4	137
3	Human ACE2-Functionalized Gold "Virus-Trap" Nanostructures for Accurate Capture of SARS-CoV-2 and Single-Virus SERS Detection. <i>Nano-Micro Letters</i> , 2021, 13, 109.	14.4	112
4	DFT and TD-DFT Investigation of a Charge Transfer Surface Resonance Raman Model of N3 Dye Bound to a Small TiO <sub>2</sub> Nanoparticle. <i>Nanomaterials</i> , 2021, 11, 1491.	1.9	7
5	The theory of surface-enhanced Raman spectroscopy on organic semiconductors: J-aggregates. <i>Chemical Physics Letters</i> , 2020, 751, 137553.	1.2	9
6	The surface-enhanced resonance Raman scattering of dye molecules adsorbed on two-dimensional titanium carbide Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) film. <i>Materials Advances</i> , 2020, 1, 146-152.	2.6	25
7	Relative contributions of Franck-Condon to Herzberg-Teller terms in charge transfer surface-enhanced Raman scattering spectroscopy. <i>Journal of Chemical Physics</i> , 2020, 152, 224107.	1.2	13
8	Surface-Enhanced Raman Scattering: A Novel Ultra-Sensitive Semiconductor SERS Substrate Boosted by the Coupled Resonance Effect ( <i>Adv. Sci.</i> 12/2019). <i>Advanced Science</i> , 2019, 6, 1970070.	5.6	2
9	Detection of fentanyl in binary mixtures with cocaine by use of surface-enhanced Raman spectroscopy. <i>Spectroscopy Letters</i> , 2019, 52, 462-472.	0.5	21
10	A Novel Ultra-Sensitive Semiconductor SERS Substrate Boosted by the Coupled Resonance Effect. <i>Advanced Science</i> , 2019, 6, 1900310.	5.6	183
11	Raman, SERS, and DFT Analysis of the Main Alkaloids Contained in Syrian Rue. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9262-9271.	1.5	19
12	Electrochromic semiconductors as colorimetric SERS substrates with high reproducibility and renewability. <i>Nature Communications</i> , 2019, 10, 678.	5.8	131
13	Competitive Binding Investigations and Quantitation in Surface-Enhanced Raman Spectra of Binary Dye Mixtures. <i>Applied Spectroscopy</i> , 2018, 72, 60-68.	1.2	8
14	Contribution of Raman and Surface Enhanced Raman Spectroscopy (SERS) to the analysis of vehicle headlights: Dye(s) characterization. <i>Forensic Science International</i> , 2018, 287, 98-107.	1.3	5
15	TDDFT Study of Charge-Transfer Raman Spectra of 4-Mercaptopyridine on Various ZnSe Nanoclusters as a Model for the SERS of 4-Mpy on Semiconductors. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4908-4927.	1.5	13
16	Detection and Quantitation of Trace Fentanyl in Heroin by Surface-Enhanced Raman Spectroscopy. <i>Analytical Chemistry</i> , 2018, 90, 12678-12685.	3.2	120
17	A complete Raman study of common acid red dyes: application to the identification of artistic materials in polychrome prints. <i>Journal of Raman Spectroscopy</i> , 2017, 48, 601-609.	1.2	34
18	The theory of surface-enhanced Raman scattering on semiconductor nanoparticles; toward the optimization of SERS sensors. <i>Faraday Discussions</i> , 2017, 205, 105-120.	1.6	85

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19	Gold Nanoparticles: Surfactant-Free Shape Control of Gold Nanoparticles Enabled by Unified Theoretical Framework of Nanocrystal Synthesis (Adv. Mater. 21(2017)). Advanced Materials, 2017, 29, .	11.1	2
20	Surfactant-Free Shape Control of Gold Nanoparticles Enabled by Unified Theoretical Framework of Nanocrystal Synthesis. Advanced Materials, 2017, 29, 1605622.	11.1	77
21	<scp>SERS</scp>, <scp>Raman</scp>, and <scp>DFT</scp> analyses of fentanyl and carfentanil: Toward detection of trace samples. Journal of Raman Spectroscopy, 2017, 48, 1323-1329.	1.2	58
22	Enhanced by organic surfaces. Nature Materials, 2017, 16, 878-880.	13.3	34
23	Tracking photo-degradation of triarylmethane dyes with surface-enhanced Raman spectroscopy. Journal of Raman Spectroscopy, 2017, 48, 418-424.	1.2	29
24	Enhanced Raman Scattering with Dielectrics. Chemical Reviews, 2016, 116, 14921-14981.	23.0	492
25	Photochemical growth of silver nanoparticles with mixed-light irradiation. Colloid and Polymer Science, 2016, 294, 911-916.	1.0	12
26	Ultra-high Raman Enhancement on Monolayer MoS <sub>2</sub> . ACS Photonics, 2016, 3, 1164-1169.	3.2	167
27	In situ microanalysis of organic colorants by inkjet colloid deposition surface-enhanced Raman scattering. Journal of Raman Spectroscopy, 2014, 45, 123-127.	1.2	19
28	10 Years of Surface-Enhanced Raman Spectroscopy in Art and Archaeology. Microscopy and Microanalysis, 2014, 20, 2006-2007.	0.2	3
29	Theory of Surface-Enhanced Raman Scattering in Semiconductors. Journal of Physical Chemistry C, 2014, 118, 11120-11130.	1.5	368
30	Active-Tuned Plasmonic Angle Modulator of Light Beams for Potential Application of 3D Display. ACS Photonics, 2014, 1, 677-682.	3.2	11
31	Two-Dimensional Array of Silica Particles as a SERS Substrate. Journal of Physical Chemistry C, 2014, 118, 9114-9118.	1.5	24
32	Enhancement of surface phonon modes in the Raman spectrum of ZnSe nanoparticles on adsorption of 4-mercaptopyridine. Journal of Chemical Physics, 2014, 140, 074701.	1.2	10
33	Statistical methods and library search approaches for fast and reliable identification of dyes using surface-enhanced Raman spectroscopy (SERS). Analytical Methods, 2013, 5, 4205.	1.3	38
34	Waveguide-Enhanced Surface Plasmons for Ultrasensitive SERS Detection. Journal of Physical Chemistry Letters, 2013, 4, 3153-3157.	2.1	39
35	Active Plasmonic Nanoantennas for Controlling Fluorescence Beams. Journal of Physical Chemistry C, 2013, 117, 19154-19159.	1.5	15
36	Simultaneous enhancement of phonons modes with molecular vibrations due to Mg doping of a TiO <sub>2</sub> substrate. RSC Advances, 2013, 3, 20891.	1.7	15

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37	Definitive evidence for linked resonances in surface-enhanced Raman scattering: Excitation profile of Cu phthalocyanine. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	27
38	Surface Plasmons: Propagating and Localized Surface Plasmons in Hierarchical Metallic Structures for Surface-Enhanced Raman Scattering (Small 11/2013). <i>Small</i> , 2013, 9, 1894-1894.	5.2	0
39	Surface-Enhanced Raman Scattering on a Chemically Etched ZnSe Surface. <i>Journal of Physical Chemistry C</i> , 2013, 117, 23372-23377.	1.5	64
40	Exploring the Chemical Enhancement of Surface-Enhanced Raman Scattering with a Designed Silver/Silica Cavity Substrate. <i>Journal of Physical Chemistry C</i> , 2013, 117, 556-563.	1.5	18
41	TLC-SERS study of Syrian rue ( <i>Peganum harmala</i> ) and its main alkaloid constituents. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 102-107.	1.2	68
42	A compact optical parametric oscillator Raman microscope for wavelength-tunable multianalytic microanalysis. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 131-135.	1.2	16
43	Multiphonon Resonant Raman Scattering and Photoinduced Charge-Transfer Effects at ZnO-Molecule Interfaces. <i>Journal of Physical Chemistry C</i> , 2012, 116, 26908-26918.	1.5	37
44	Interfacial Charge-Transfer Effects in Semiconductor-Molecule-Metal Structures: Influence of Contact Variation. <i>Journal of Physical Chemistry C</i> , 2012, 116, 14701-14710.	1.5	40
45	A Long-Range Surface Plasmon Resonance/Probe/Silver Nanoparticle (LRSPR-P-NP) Nanoantenna Configuration for Surface-Enhanced Raman Scattering. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2773-2778.	2.1	25
46	The theory of surface-enhanced Raman scattering. <i>Journal of Chemical Physics</i> , 2012, 136, 144704.	1.2	116
47	Raman Investigation of Nanosized TiO <sub>2</sub> : Effect of Crystallite Size and Quantum Confinement. <i>Journal of Physical Chemistry C</i> , 2012, 116, 8792-8797.	1.5	269
48	Size controlled synthesis of monodisperse PbTe quantum dots: using oleylamine as the capping ligand. <i>Journal of Materials Chemistry</i> , 2012, 22, 23593.	6.7	37
49	Raman spectrum of monobromoindigo. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 520-525.	1.2	11
50	Surface-enhanced Raman scattering of molecules adsorbed on Co-doped ZnO nanoparticles. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 61-64.	1.2	48
51	Single Molecule SERS Spectral Blinking and Vibronic Coupling. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4540-4545.	1.5	64
52	Metal-Semiconductor Contacts Induce the Charge-Transfer Mechanism of Surface-Enhanced Raman Scattering. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18378-18383.	1.5	67
53	Surface-enhanced Raman spectroscopy of 4-tert-butylpyridine on a silver electrode. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 1945-1948.	1.2	3
54	Improved surface-enhanced Raman scattering properties of TiO <sub>2</sub> nanoparticles by Zn dopant. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 721-726.	1.2	50

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55	A Unified Theory Of Surface Enhanced Raman Scattering. , 2010, , .		0
56	Surface Enhanced Raman Spectroscopy of Pyridine on CdSe/ZnBeSe Quantum Dots Grown by Molecular Beam Epitaxy. Journal of Physical Chemistry C, 2010, 114, 17460-17464.	1.5	59
57	Size and Wavelength Dependence of the Charge-Transfer Contributions to Surface-Enhanced Raman Spectroscopy in Ag/PATP/ZnO Junctions. Journal of Physical Chemistry C, 2010, 114, 1610-1614.	1.5	63
58	A charge-transfer surface enhanced Raman scattering model from time-dependent density functional theory calculations on a Ag10-pyridine complex. Journal of Chemical Physics, 2010, 132, 214707.	1.2	64
59	Excitation Profiles and the Continuum in SERS: Identification of Fano Line Shapes. Journal of Physical Chemistry C, 2010, 114, 7812-7815.	1.5	21
60	Direct observation of surface-enhanced Raman scattering in ZnO nanocrystals. Journal of Raman Spectroscopy, 2009, 40, 1072-1077.	1.2	220
61	Surface-enhanced Raman spectroscopy of indanthrone and flavanthrone. Journal of Raman Spectroscopy, 2009, 40, 1557-1563.	1.2	15
62	Adsorption study of 4-mercaptobenzoic acid on TiO <sub>2</sub> nanoparticles by surface-enhanced Raman spectroscopy. Journal of Raman Spectroscopy, 2009, 40, 2004-2008.	1.2	54
63	A Unified View of Surface-Enhanced Raman Scattering. Accounts of Chemical Research, 2009, 42, 734-742.	7.6	678
64	Determination of the Degree of Charge-Transfer Contributions to Surface-Enhanced Raman Spectroscopy. ChemPhysChem, 2008, 9, 1617-1623.	1.0	67
65	Mercaptopyridine Surface-Functionalized CdTe Quantum Dots with Enhanced Raman Scattering Properties. Journal of Physical Chemistry C, 2008, 112, 996-1000.	1.5	94
66	Nanoparticle Metal-Semiconductor Charge Transfer in ZnO/PATP/Ag Assemblies by Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 6093-6098.	1.5	117
67	DFT, SERS, and Single-Molecule SERS of Crystal Violet. Journal of Physical Chemistry C, 2008, 112, 20295-20300.	1.5	305
68	A Unified Approach to Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 5605-5617.	1.5	750
69	Mechanism and Prediction of Laser Wet Cleaning of Marble Encrustation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	2
70	Time-dependent picture of the charge-transfer contributions to surface enhanced Raman spectroscopy. Journal of Chemical Physics, 2007, 126, 244709.	1.2	117
71	Laser-Induced Growth of Monodisperse Silver Nanoparticles with Tunable Surface Plasmon Resonance Properties and a Wavelength Self-Limiting Effect. Journal of Physical Chemistry C, 2007, 111, 14962-14967.	1.5	114
72	Raman scattering study of molecules adsorbed on ZnS nanocrystals. Journal of Raman Spectroscopy, 2007, 38, 34-38.	1.2	190

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73	Raman and surface-enhanced Raman spectra of flavone and several hydroxy derivatives. <i>Journal of Raman Spectroscopy</i> , 2007, 38, 802-818.	1.2	99
74	Identification of berberine in ancient and historical textiles by surface-enhanced Raman scattering. <i>Journal of Raman Spectroscopy</i> , 2007, 38, 853-858.	1.2	100
75	Transition Metal Dimer Internuclear Distances from Measured Force Constants. <i>Journal of Physical Chemistry A</i> , 2003, 107, 1268-1273.	1.1	71
76	Ab Initio Frequency Calculations of Pyridine Adsorbed on an Adatom Model of a SERS Active Site of a Silver Surface. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5547-5557.	1.2	84
77	Spectroscopy of mass-selected VCo and VFe in argon matrices. <i>Journal of Chemical Physics</i> , 2003, 118, 9704-9709.	1.2	4
78	Periodic Properties of Force Constants of Small Transition-Metal and Lanthanide Clusters. <i>Chemical Reviews</i> , 2002, 102, 2431-2460.	23.0	295
79	Excitation, Hole-Burning, and Stark Spectroscopy of Free Base Isobacteriochlorin in an-Octane Matrix at Liquid Helium Temperatures. <i>Journal of Physical Chemistry A</i> , 2001, 105, 6581-6585.	1.1	1
80	Resonance Raman Spectroscopy of Mass Selected Chromium Trimers in an Argon Matrix. <i>Journal of Physical Chemistry A</i> , 2001, 105, 9375-9378.	1.1	14
81	Raman and absorption spectrum of mass-selected lutetium dimers in argon matrices. <i>Journal of Chemical Physics</i> , 2000, 113, 10202-10206.	1.2	12
82	Raman spectra of rhodium trimers in argon matrices. <i>Journal of Chemical Physics</i> , 2000, 113, 7178-7181.	1.2	10
83	Spectroscopy of mass-selected gadolinium dimers in argon matrices. <i>Journal of Chemical Physics</i> , 2000, 112, 9780-9782.	1.2	15
84	Absorption, excitation, and resonance Raman spectra of Ce <sub>2</sub> , Pr <sub>2</sub> , and Nd <sub>2</sub> . <i>Journal of Chemical Physics</i> , 2000, 113, 2233-2237.	1.2	20
85	Raman Spectrum of Mass-Selected Terbium Dimers in Argon Matrixes. <i>Journal of Physical Chemistry A</i> , 2000, 104, 9153-9155.	1.1	4
86	Stark Hole-Burning Spectroscopy of Cresylviolet Perchlorate in Amorphous Hosts. <i>Spectroscopy Letters</i> , 1999, 32, 125-137.	0.5	4
87	Spectroscopy of mass-selected rhodium dimers in argon matrices. <i>Journal of Chemical Physics</i> , 1997, 106, 2101-2104.	1.2	49
88	Absorption, resonance Raman, and Raman excitation spectra of hafnium trimers. <i>Journal of Chemical Physics</i> , 1997, 106, 8339-8343.	1.2	15
89	Spectroscopy of mass-selected niobium trimers in argon matrices. <i>Journal of Chemical Physics</i> , 1996, 105, 5355-5357.	1.2	30
90	Raman spectra of mass-selected nickel dimers in argon matrices. <i>Journal of Chemical Physics</i> , 1996, 104, 3420-3422.	1.2	37

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91	Absorption and Raman spectroscopy of mass-selected tantalum tetramers in argon matrices. Journal of Chemical Physics, 1995, 103, 3289-3292.	1.2	34
92	Resonance Raman spectrum and excitation profile of mass-selected zirconium trimers. Journal of Chemical Physics, 1995, 103, 9527-9529.	1.2	27
93	Raman spectra of mass-selected cobalt dimers in argon matrices. Journal of Chemical Physics, 1994, 101, 9280-9282.	1.2	49
94	Investigation of radical ions with time-resolved surface enhanced Raman spectroscopy. Molecular Engineering, 1994, 4, 277-310.	0.2	9
95	Optical and Raman spectroscopy of mass-selected tungsten dimers in argon matrices. Journal of Chemical Physics, 1992, 97, 8811-8812.	1.2	44
96	Stark effect on the 580 nm S1 $\rightarrow$ S0 transition of isobacteriochlorin using photochemical hole-burning spectroscopy. Journal of Chemical Physics, 1987, 86, 4335-4340.	1.2	26
97	Stark effect on the S1 $\rightarrow$ S0 transition of 1,4-dihydroxyanthraquinone. Journal of Chemical Physics, 1987, 86, 3048-3050.	1.2	10
98	Charge-transfer theory of surface enhanced Raman spectroscopy: Herzberg-Teller contributions. Journal of Chemical Physics, 1986, 84, 4174-4180.	1.2	625
99	The Yukawa potential in momentum space: Analytic behavior of the eigenfunctions. Journal of Chemical Physics, 1986, 85, 949-952.	1.2	3
100	The effect of molecular structure on voltage induced shifts of charge transfer excitation in surface enhanced Raman scattering. Chemical Physics Letters, 1984, 104, 240-247.	1.2	137
101	Surface-enhanced Raman scattering of piperidine. The effect of electrode potential on intensity. The Journal of Physical Chemistry, 1984, 88, 1762-1766.	2.9	40
102	A correlated one parameter momentum space function for the ground state of helium. Journal of Chemical Physics, 1983, 78, 2476-2479.	1.2	14
103	Surface Enhanced Raman Spectroscopy. Advances in Chemistry Series, 1982, , 69-107.	0.6	20
104	Surface enhanced raman spectrum of pyrazine. Observation of forbidden lines at the electrode surface. Chemical Physics Letters, 1980, 69, 495-498.	1.2	66
105	OODR spectroscopy of BaO. II. New observations of $\alpha$ and $A^2\Sigma^+$ and re-examination of the Parkinson band system. Journal of Chemical Physics, 1978, 68, 4110-4122.	1.2	68