Nicolae Leopold

List of Publications by Year
in descending order

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119 papers	3,883 citations	172207 29 h-index	143772 57 g-index
119 all docs	119 docs citations	119 times ranked	5010 citing authors

#	Article	IF	Citations
1	A New Method for Fast Preparation of Highly Surface-Enhanced Raman Scattering (SERS) Active Silver Colloids at Room Temperature by Reduction of Silver Nitrate with Hydroxylamine Hydrochloride. Journal of Physical Chemistry B, 2003, 107, 5723-5727.	1.2	1,040
2	FTIR, FT-Raman, SERS and DFT study on melamine. Vibrational Spectroscopy, 2012, 62, 165-171.	1.2	204
3	Identification and characterization of pharmaceuticals using Raman and surface-enhanced Raman scattering. Journal of Raman Spectroscopy, 2004, 35, 338-346.	1.2	131
4	SERS-active silver colloids prepared by reduction of silver nitrate with short-chain polyethylene glycol. Nanoscale Research Letters, 2013, 8, 47.	3.1	105
5	Quantification of carbohydrates in fruit juices using FTIR spectroscopy and multivariate analysis. Spectroscopy, 2011, 26, 93-104.	0.8	74
6	On-Line Monitoring of Airborne Chemistry in Levitated Nanodroplets:Â In Situ Synthesis and Application of SERS-Active Agâ^'Sols for Trace Analysis by FT-Raman Spectroscopy. Analytical Chemistry, 2003, 75, 2166-2171.	3.2	70
7	Rapid single-cell detection and identification of pathogens by using surface-enhanced Raman spectroscopy. Analyst, The, 2017, 142, 1782-1789.	1.7	70
8	IR, Raman, SERS and DFT study of amoxicillin. Journal of Molecular Structure, 2011, 993, 52-56.	1.8	66
9	Raman and surface-enhanced Raman study of thiamine at different pH values. Vibrational Spectroscopy, 2005, 39, 169-176.	1.2	64
10	SERS-based differential diagnosis between multiple solid malignancies: breast, colorectal, lung, ovarian and oral cancer . International Journal of Nanomedicine, 2019, Volume 14, 6165-6178.	3.3	62
11	Breast Cancer Diagnosis by Surface-Enhanced Raman Scattering (SERS) of Urine. Applied Sciences (Switzerland), 2019, 9, 806.	1.3	58
12	Towards a receptor-free immobilization and SERS detection of urinary tract infections causative pathogens. Analytical and Bioanalytical Chemistry, 2014, 406, 3051-3058.	1.9	53
13	Combining SERS analysis of serum with PSA levels for improving the detection of prostate cancer. Nanomedicine, 2018, 13, 2455-2467.	1.7	53
14	The role of adatoms in chloride-activated colloidal silver nanoparticles for surface-enhanced Raman scattering enhancement. Beilstein Journal of Nanotechnology, 2018, 9, 2236-2247.	1.5	48
15	Absorption spectra of PTCDI: A combined UVâ€“Vis and TD-DFT study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2012, 97, 703-710.	2.0	46
16	Vibrational and DFT study of 5-(3-pyridyl-methylidene)-thiazolidine-2-thione-4-one. Vibrational Spectroscopy, 2008, 48, 289-296.	1.2	45
17	Assessment of PEG and BSA-PEG gold nanoparticles cellular interaction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 532, 70-76.	2.3	44
18	Anthocyanins, Vibrant Color Pigments, and Their Role in Skin Cancer Prevention. Biomedicines, 2020, 8, 336.	1.4	44

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19	IR, Raman and surface-enhanced Raman study of desferrioxamine B and its Fe(III) complex, ferrioxamine B. Journal of Molecular Structure, 2006, 788, 1-6.	1.8	41
20	Raman, surface-enhanced Raman scattering and DFT study of para-nitro-aniline. Vibrational Spectroscopy, 2008, 48, 210-214.	1.2	41
21	SERS liquid biopsy: An emerging tool for medical diagnosis. Colloids and Surfaces B: Biointerfaces, 2021, 208, 112064.	2.5	41
22	SERS-based liquid biopsy of saliva and serum from patients with SjÃ¶grenâ€™s syndrome. Analytical and Bioanalytical Chemistry, 2019, 411, 5877-5883.	1.9	38
23	Raman and surface enhanced Raman spectroscopy of 2,2,5,5-tetramethyl-3-pyrrolin-1-yloxy-3-carboxamide labeled proteins: Bovine serum albumin and cytochromec. Biopolymers, 2001, 62, 341-348.	1.2	35
24	Comparison of the in Vitro Uptake and Toxicity of Collagen- and Synthetic Polymer-Coated Gold Nanoparticles. Nanomaterials, 2015, 5, 1418-1430.	1.9	35
25	Vibrational spectroscopy of betulinic acid HIV inhibitor and of its birch bark natural source. Talanta, 2002, 57, 625-631.	2.9	34
26	Characterization of Trametes versicolor: Medicinal Mushroom with Important Health Benefits. Notulae Botanicae Horti Agrobotanici Cluj-Napoca, 2018, 46, 343-349.	0.5	34
27	Green synthesis of gold nanoparticles by Allium sativum extract and their assessment as SERS substrate. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	32
28	Characterization and Discrimination of Gram-Positive Bacteria Using Raman Spectroscopy with the Aid of Principal Component Analysis. Nanomaterials, 2017, 7, 248.	1.9	32
29	Monosodium glutamate in its anhydrous and monohydrate form: Differentiation by Raman spectroscopies and density functional calculations. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 66, 604-615.	2.0	30
30	SERS and DFT investigation of 1-(2-pyridylazo)-2-naphthol and its metal complexes with Al(III), Mn(II), Fe(III), Cu(II), Zn(II) and Pb(II). Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2012, 93, 266-273.	2.0	30
31	On-column silver substrate synthesis and surface-enhanced Raman detection in capillary electrophoresis. Analytical and Bioanalytical Chemistry, 2010, 396, 2341-2348.	1.9	29
32	Vibrational and electronic structure of PTCDI and melamineâ€“PTCDI complexes. Journal of Molecular Structure, 2009, 924-926, 47-53.	1.8	27
33	Exosome-carried microRNA-based signature as a cellular trigger for the evolution of chronic lymphocytic leukemia into Richter syndrome. Critical Reviews in Clinical Laboratory Sciences, 2018, 55, 501-515.	2.7	27
34	Nitrogenâ€Rich Compounds of the Lanthanoids: Highlights and Summary. Helvetica Chimica Acta, 2010, 93, 183-202.	1.0	26
35	SERS-based quantification of albuminuria in the normal-to-mildly increased range. Analyst, The, 2018, 143, 5372-5379.	1.7	26
36	SERS assessment of the cancer-specific methylation pattern of genomic DNA: towards the detection of acute myeloid leukemia in patients undergoing hematopoietic stem cell transplantation. Analytical and Bioanalytical Chemistry, 2019, 411, 7907-7913.	1.9	26

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37	Combined miRNA and SERS urine liquid biopsy for the point-of-care diagnosis and molecular stratification of bladder cancer. Molecular Medicine, 2022, 28, 39.	1.9	26
38	One step synthesis of SERS active colloidal gold nanoparticles by reduction with polyethylene glycol. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 133-138.	2.3	25
39	Polyhydroxybutyrate production by an extremely halotolerant Halomonas elongata strain isolated from the hypersaline meromictic FÄƒrÄƒ Fund Lake (Transylvanian Basin, Romania). Journal of Applied Microbiology, 2018, 125, 1343-1357.	1.4	25
40	Raman spectroscopy applications in rheumatology. Lasers in Medical Science, 2019, 34, 827-834.	1.0	25
41	Fermi Level Equilibration at the Metalâ€“Molecule Interface in Plasmonic Systems. Nano Letters, 2021, 21, 6592-6599.	4.5	25
42	Spectroscopic and theoretical study of amlodipine besylate. Journal of Molecular Structure, 2009, 924-926, 385-392.	1.8	23
43	SERS-Based Liquid Biopsy of Gastrointestinal Tumors Using a Portable Raman Device Operating in a Clinical Environment. Journal of Clinical Medicine, 2020, 9, 212.	1.0	23
44	Raman and surface-enhanced Raman spectroscopy of tempyo spin labelled ovalbumin. Journal of Molecular Structure, 2001, 565-566, 225-229.	1.8	22
45	Surfaceâ€enhanced Raman spectroscopy of DNA from leaves of in vitro grown apple plants. Journal of Raman Spectroscopy, 2011, 42, 844-850.	1.2	22
46	Diversity and Biomineralization Potential of the Epilithic Bacterial Communities Inhabiting the Oldest Public Stone Monument of Cluj-Napoca (Transylvania, Romania). Frontiers in Microbiology, 2017, 08, 372.	1.5	21
47	Solid Plasmonic Substrates for Breast Cancer Detection by Means of SERS Analysis of Blood Plasma. Nanomaterials, 2020, 10, 1212.	1.9	21
48	Nitrogenâ€Rich Compounds of the Lanthanoids: The 5,5â€²â€Azobis[1Hâ€tetrazolâ€1â€ides] of some Yttric Earths (Tb, Dy, Ho, Er, Tm, Yb, and Lu). Helvetica Chimica Acta, 2009, 92, 1371-1384.	1.0	20
49	IR absorption and reflectometric interference spectroscopy (RIfS) combined to a new sensing approach for gas analytes absorbed into thin polymer films. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2009, 72, 994-999.	2.0	20
50	In situ laser-induced photochemical silver substrate synthesis and sequential SERS detection in a flow cell. Analytical and Bioanalytical Chemistry, 2011, 400, 815-820.	1.9	20
51	Selective Single Molecule SERRS of Cationic and Anionic Dyes by Cl^{â€“} and Mg²⁺ Adions: An Old New Idea. Journal of Physical Chemistry C, 2021, 125, 12802-12810.	1.5	20
52	Raman, IR, and surface-enhanced Raman spectroscopy of papaverine. Vibrational Spectroscopy, 2004, 36, 47-55.	1.2	19
53	Nitrogenâ€Rich Compounds of the Lanthanoids: The 5,5â€²â€Azobis[1Hâ€tetrazolâ€1â€ides] of the Light Rare Earths (Ce, Pr, Nd, Sm, Eu, Gd). Helvetica Chimica Acta, 2009, 92, 2038-2051.	1.0	19
54	Adsorption of sulfamethoxazole molecule on silver colloids: A joint SERS and DFT study. Journal of Molecular Structure, 2014, 1073, 71-76.	1.8	19

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55	The role of Ag⁺, Ca²⁺, Pb²⁺ and Al³⁺ adions in the SERS turn-on effect of anionic analytes. Beilstein Journal of Nanotechnology, 2019, 10, 2338-2345.	1.5	19
56	Raman spectroscopic and DFT theoretical study of 4-(2-pyridylazo)resorcinol and its complexes with zinc(II) and copper(II). Journal of Molecular Structure, 2009, 919, 94-99.	1.8	18
57	Surfaceâ€enhanced Raman scattering assessment of DNA from leaf tissues adsorbed on silver colloidal nanoparticles. Journal of Raman Spectroscopy, 2013, 44, 817-822.	1.2	18
58	DFT study and quantitative detection by surfaceâ€enhanced Raman scattering (SERS) of ethyl carbamate. Journal of Raman Spectroscopy, 2013, 44, 1491-1496.	1.2	18
59	Reversible naftifine-induced carotenoid depigmentation in Rhodotorula mucilaginosa (A. JÃ¶rg.) F.C. Harrison causing onychomycosis. Scientific Reports, 2017, 7, 11125.	1.6	18
60	Combining surface-enhanced Raman scattering (SERS) of saliva and two-dimensional shear wave elastography (2D-SWE) of the parotid glands in the diagnosis of SjÃ¶gren's syndrome. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 235, 118267.	2.0	18
61	Surfaceâ€enhanced Raman spectroscopy of genomic DNA from in vitro grown plant species. Journal of Raman Spectroscopy, 2011, 42, 1925-1931.	1.2	17
62	Gold nanoparticle assemblies of controllable size obtained by hydroxylamine reduction at room temperature. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	17
63	Surface-enhanced Raman spectroscopy of genomic DNA from in vitro grown tomato (Lycopersicon) Tj ETQq1 1 0.784314 rgBT /Overl Molecular and Biomolecular Spectroscopy, 2015, 144, 107-114.	2.0	16
64	Knee osteoarthritis grading by resonant Raman and surface-enhanced Raman scattering (SERS) analysis of synovial fluid. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 20, 102012.	1.7	16
65	Anisotropic Gold Nanoparticle-Cell Interactions Mediated by Collagen. Materials, 2019, 12, 1131.	1.3	16
66	Assessment of Gold-Coated Iron Oxide Nanoparticles as Negative T2 Contrast Agent in Small Animal MRI Studies . International Journal of Nanomedicine, 2020, Volume 15, 4811-4824.	3.3	16
67	SERS liquid biopsy in breast cancer. What can we learn from SERS on serum and urine?. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 273, 120992.	2.0	16
68	Chemical Structure, Sources and Role of Bioactive Flavonoids in Cancer Prevention: A Review. Plants, 2022, 11, 1117.	1.6	16
69	Surface-enhanced Raman scattering and DFT investigation of Eriochrome Black T metal chelating compound. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2011, 79, 226-231.	2.0	15
70	Prediction of Total Antioxidant Capacity of Fruit Juices Using FTIR Spectroscopy and PLS Regression. Food Analytical Methods, 2012, 5, 405-407.	1.3	15
71	Microfluidic setup for on-line SERS monitoring using laser induced nanoparticle spots as SERS active substrate. Beilstein Journal of Nanotechnology, 2017, 8, 237-243.	1.5	15
72	The effect of 100â€“200Ânm ZnO and TiO2 nanoparticles on the in vitro-grown soybean plants. Colloids and Surfaces B: Biointerfaces, 2022, 216, 112536.	2.5	15

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73	Raman, SERS and theoretical studies of papaverine hydrochloride and its neutral species. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2021-2028.	2.0	14
74	Spectroscopic and DFT study of atenolol and metoprolol and their copper complexes. Journal of Molecular Structure, 2011, 993, 357-366.	1.8	14
75	IR, Raman, SERS and DFT study of paroxetine. Journal of Molecular Structure, 2011, 993, 243-248.	1.8	13
76	Adduct of Aquacobalamin with Hydrogen Peroxide. Inorganic Chemistry, 2021, 60, 12681-12684.	1.9	13
77	Surface-enhanced Raman and DFT study on zidovudine. Spectroscopy, 2011, 26, 311-315.	0.8	12
78	Designing Gold Nanoparticle-Ensembles as Surface Enhanced Raman Scattering Tags inside Human Retinal Cells. Journal of Nanotechnology, 2012, 2012, 1-10.	1.5	12
79	Simple approach for gold nanoparticle synthesis using an Ar-bubbled plasma setup. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	12
80	Discrimination of haloarchaeal genera using Raman spectroscopy and robust methods for multivariate data analysis. Journal of Raman Spectroscopy, 2017, 48, 1122-1126.	1.2	12
81	Fe(III) â€“ Sulfide interaction in globins: Characterization and quest for a putative Fe(IV)-sulfide species. Journal of Inorganic Biochemistry, 2018, 179, 32-39.	1.5	12
82	SERS Liquid Biopsy Profiling of Serum for the Diagnosis of Kidney Cancer. Biomedicines, 2022, 10, 233.	1.4	12
83	SERS-based DNA methylation profiling allows the differential diagnosis of malignant lymphadenopathy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 264, 120216.	2.0	11
84	Rapid Single-cell Detection and Identification of Bacteria by Using Surface-enhanced Raman Spectroscopy. Procedia Technology, 2017, 27, 203-207.	1.1	10
85	Expedite SERS Fingerprinting of Portuguese White Wines Using Plasmonic Silver Nanostars. Frontiers in Chemistry, 2019, 7, 368.	1.8	10
86	Recent advances in surfaceâ€‘enhanced Raman spectroscopy based liquid biopsy for colorectal cancer (Review). Experimental and Therapeutic Medicine, 2020, 20, 1-1.	0.8	10
87	Controlling Plasmonic Chemistry Pathways through Specific Ion Effects. Advanced Optical Materials, 2022, 10, .	3.6	10
88	Spectroscopic investigations of new Cu(II), Co(II), Ni(II) complexes with Î³-l-glutamyl amide as ligand. Journal of Molecular Structure, 2005, 744-747, 325-330.	1.8	9
89	In situ Silver Spot Preparation and on-Plate Surface-Enhanced Raman Scattering Detection in Thin Layer Chromatography Separation. Journal of Applied Spectroscopy, 2013, 80, 311-314.	0.3	9
90	Vibrational spectroscopic and DFT study of trimethoprim. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 102, 52-58.	2.0	9

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91	Structural Changes Induced in Grapevine (Vitis vinifera L.) DNA by Femtosecond IR Laser Pulses: A Surface-Enhanced Raman Spectroscopic Study. Nanomaterials, 2016, 6, 96.	1.9	9
92	Spectroscopic and theoretical studies of dofetilide. Vibrational Spectroscopy, 2008, 48, 297-301.	1.2	8
93	Spectroscopic and physicalâ€“chemical characterization of ambazoneâ€“glutamate salt. Spectroscopy, 2011, 26, 115-128.	0.8	8
94	Molecular Structure of Phenytoin: NMR, UV-Vis and Quantum Chemical Calculations. Croatica Chemica Acta, 2015, 88, 511-522.	0.1	8
95	Subpicosecond surface dynamics in genomic DNA from in vitro-grown plant species: a SERS assessment. Physical Chemistry Chemical Physics, 2015, 17, 21323-21330.	1.3	8
96	Weakly bound PTCDI and PTCDA dimers studied by using MP2 and DFT methods with dispersion correction. Physical Chemistry Chemical Physics, 2013, 15, 13978.	1.3	7
97	Cellular Internalization of Beta-Carotene Loaded Polyelectrolyte Multilayer Capsules by Raman Mapping. Molecules, 2020, 25, 1477.	1.7	7
98	Halideâ€“Metal Complexes at Plasmonic Interfaces Create New Decay Pathways for Plasmons and Excited Molecules. ACS Photonics, 2022, 9, 895-904.	3.2	7
99	SERS approach for Zn(II) detection in contaminated soil. Open Chemistry, 2011, 9, 410-414.	1.0	6
100	Room Temperature Synthesis of Highly Monodisperse and Sers-Active Glucose-Reduced Gold Nanoparticles. Journal of Applied Spectroscopy, 2015, 82, 415-419.	0.3	6
101	Warfarin-Capped Gold Nanoparticles: Synthesis, Cytotoxicity, and Cellular Uptake. Molecules, 2019, 24, 4145.	1.7	6
102	SERS-Based Evaluation of the DNA Methylation Pattern Associated With Progression in Clonal Leukemogenesis of Down Syndrome. Frontiers in Bioengineering and Biotechnology, 2021, 9, 703268.	2.0	6
103	Subpicosecond dynamics in DNA from leaves ofin vitro-grown apple plants: A SERS study. Spectroscopy, 2011, 26, 59-68.	0.8	5
104	Surface-enhanced Raman scattering and DFT investigation of 1,5-diphenylcarbazide and its metal complexes with Ca(II), Mn(II), Fe(III) and Cu(II). Journal of Molecular Structure, 2014, 1073, 10-17.	1.8	5
105	Interaction behaviour of a PDMSâ€“calixarene system and polar analytes characterised by microcalorimetry and spectroscopic methods. Analytical and Bioanalytical Chemistry, 2007, 389, 1879-1887.	1.9	4
106	Raman and SERS study of metoclopramide at different pH values. Journal of Raman Spectroscopy, 2010, 41, 248-255.	1.2	4
107	Ultrasensitive detection of genomic DNA from apple leaf tissues, using surface-enhanced Raman scattering. Spectroscopy, 2011, 25, 33-43.	0.8	4
108	IR, Raman, SERS and DFT study of pindolol and verapamil. Journal of Molecular Structure, 2011, 993, 308-315.	1.8	3

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109	SERS-Based Assessment of MRD in Acute Promyelocytic Leukemia?. Frontiers in Oncology, 2020, 10, 1024.	1.3	3
110	Interaction Behaviour of the Ultramicroporous Polymer Makrolon Â® by Spectroscopic Methods. , 0, , 16-22.		2
111	Molecular relaxation processes in genomic DNA from leaf tissues: A surface-enhanced Raman spectroscopic study. Spectroscopy, 2011, 26, 245-254.	0.8	2
112	Conformational Preference and Spectroscopical Characteristics of the Active Pharmaceutical Ingredient Levetiracetam. Journal of Pharmaceutical Sciences, 2017, 106, 3564-3573.	1.6	2
113	Photothermal property assessment of gold nanoparticle assemblies obtained by hydroxylamine reduction. Colloid and Polymer Science, 2020, 298, 1369-1377.	1.0	2
114	Cancer tissue screening using surface enhanced Raman scattering. , 2010, , .		1
115	Raman Scattering Enhancement of Peg Coated Gold Nanoparticles of Defined Size. Journal of Applied Spectroscopy, 2014, 81, 411-415.	0.3	1
116	Microarray Biochips - Thousands of Reactions on a Small Chip (MOBA). , 2006, , 405-476.		0
117	Discrimination of Grapevine Genomic DNA Using Surface-Enhanced Raman Spectroscopy and PCA. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 499-500.	0.2	0
118	Chlorite reactivity with myoglobin: Analogy with peroxide and nitrite chemistry?. Journal of Inorganic Biochemistry, 2017, 172, 122-128.	1.5	0
119	Metal-molecule charge transfer through Fermi level equilibration in plasmonic systems. , 2021, , .		0