Vassilia Zorba

List of Publications by Year
in descending order

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74	3,732	136950	123424
papers	citations	32 h-index	61 g-index

76	76	76	4192
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biomimetic Artificial Surfaces Quantitatively Reproduce the Water Repellency of a Lotus Leaf. Advanced Materials, 2008, 20, 4049-4054.	21.0	461
2	The origin of high electrolyteâ€“electrode interfacial resistances in lithium cells containing garnet type solid electrolytes. Physical Chemistry Chemical Physics, 2014, 16, 18294-18300.	2.8	431
3	Making silicon hydrophobic: wettability control by two-lengthscale simultaneous patterning with femtosecond laser irradiation. Nanotechnology, 2006, 17, 3234-3238.	2.6	242
4	Laser Ablation in Analytical Chemistry. Analytical Chemistry, 2013, 85, 6162-6177.	6.5	239
5	Effect of microstructure and surface impurity segregation on the electrical and electrochemical properties of dense Al-substituted Li₇La₃Zr₂O₁₂. Journal of Materials Chemistry A, 2014, 2, 172-181.	10.3	170
6	Bio-inspired water repellent surfaces produced by ultrafast laser structuring of silicon. Applied Surface Science, 2009, 255, 5425-5429.	6.1	126
7	Reversible Photoinduced Wettability Transition of Hierarchical ZnO Structures. Journal of Physical Chemistry C, 2009, 113, 2891-2895.	3.1	124
8	Laserâ€“nanostructure interactions for ion production. Physical Chemistry Chemical Physics, 2012, 14, 8453.	2.8	97
9	Tailoring the wetting response of silicon surfaces via fs laser structuring. Applied Physics A: Materials Science and Processing, 2008, 93, 819.	2.3	93
10	Electrowetting Properties of Micro/Nanostructured Black Silicon. Langmuir, 2010, 26, 13007-13014.	3.5	80
11	UV fsâ€“ns double-pulse laser induced breakdown spectroscopy for high spatial resolution chemical analysis. Journal of Analytical Atomic Spectrometry, 2013, 28, 743.	3.0	80
12	Laser writing of nanostructures on bulk Al via its ablation in liquids. Nanotechnology, 2009, 20, 105303.	2.6	78
13	Femtosecond laser writing of nanostructures on bulk Al via its ablation in air and liquids. Applied Surface Science, 2009, 255, 5346-5350.	6.1	73
14	Three-dimensional elemental imaging of Li-ion solid-state electrolytes using fs-laser induced breakdown spectroscopy (LIBS). Journal of Analytical Atomic Spectrometry, 2015, 30, 2295-2302.	3.0	73
15	Simultaneous 3-dimensional elemental imaging with LIBS and LA-ICP-MS. Journal of Analytical Atomic Spectrometry, 2014, 29, 1292-1298.	3.0	72
16	Ultraviolet femtosecond, picosecond and nanosecond laser microstructuring of silicon: structural and optical properties. Applied Optics, 2008, 47, 1846.	2.1	70
17	Ultrafast laser induced breakdown spectroscopy for high spatial resolution chemical analysis. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 189-192.	2.9	69
18	Silicon electron emitters fabricated by ultraviolet laser pulses. Applied Physics Letters, 2006, 88, 081103.	3.3	67

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19	Superhydrophilic TiO2 surface without photocatalytic activation. Applied Physics Letters, 2010, 96, .	3.3	64
20	Reversible wettability of ZnO nanostructured thin films prepared by pulsed laser deposition. Thin Solid Films, 2009, 518, 1267-1270.	1.8	62
21	Effects of crystallinity and impurities on the electrical conductivity of Liâ€“Laâ€“Zrâ€“O thin films. Thin Solid Films, 2015, 576, 55-60.	1.8	61
22	Laser plasma spectrochemistry. Journal of Analytical Atomic Spectrometry, 2011, 26, 1596.	3.0	58
23	Surface nanotexturing of tantalum by laser ablation in water. Quantum Electronics, 2009, 39, 89-93.	1.0	50
24	Ultrafast laser induced breakdown spectroscopy of electrode/electrolyte interfaces. Applied Physics Letters, 2012, 100, .	3.3	48
25	Laser microstructuring of Si surfaces for low-threshold field-electron emission. Thin Solid Films, 2004, 453-454, 492-495.	1.8	47
26	Nanoparticle Enhanced Laser Induced Breakdown Spectroscopy for Improving the Detection of Molecular Bands. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 125, 11-17.	2.9	42
27	Combination of atomic lines and molecular bands for uranium optical isotopic analysis in laser induced plasma spectrometry. Journal of Radioanalytical and Nuclear Chemistry, 2017, 312, 121-131.	1.5	42
28	Femtosecond filament-laser ablation molecular isotopic spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 113, 113-118.	2.9	39
29	Low-temperature growth of NiMnSb thin films by pulsed-laser deposition. Applied Physics Letters, 2002, 80, 2716-2718.	3.3	38
30	Femtosecond laser induced breakdown spectroscopy of Cu at the micron/sub-micron scale. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 113, 37-42.	2.9	37
31	Isotopic determination of uranium in soil by laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 122, 31-39.	2.9	35
32	Optical far- and near-field femtosecond laser ablation of Si for nanoscale chemical analysis. Analytical and Bioanalytical Chemistry, 2010, 396, 173-180.	3.7	33
33	Femtosecond Laser Ablation Molecular Isotopic Spectrometry for Zirconium Isotope Analysis. Analytical Chemistry, 2015, 87, 4788-4796.	6.5	31
34	Laser wavelength effects in ultrafast near-field laser nanostructuring of Si. Applied Physics Letters, 2009, 95, .	3.3	30
35	Ultraviolet laser microstructuring of silicon and the effect of laser pulse duration on the surface morphology. Applied Surface Science, 2006, 252, 4462-4466.	6.1	29
36	Laser Ablation Molecular Isotopic Spectrometry for Molecules Formation Chemistry in Femtosecond-Laser Ablated Plasmas. Analytical Chemistry, 2017, 89, 7750-7757.	6.5	27

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37	Multivariate nonlinear spectral fitting for uranium isotopic analysis with laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 150, 67-76.	2.9	25
38	Enhanced lithium ion transport in garnet-type solid state electrolytes. Journal of Electroceramics, 2017, 38, 168-175.	2.0	22
39	Characteristics of plasma plume in ultrafast laser ablation with a weakly ionized air channel. Optics Express, 2018, 26, 13425.	3.4	21
40	Double-pulse laser ablation sampling: Enhancement of analyte emission by a second laser pulse at 213 nm. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 110, 51-55.	2.9	20
41	Spectroscopic investigation of wheat grains (Triticum aestivum) infected by wheat seed gall nematodes (Anguina tritici). Biocatalysis and Agricultural Biotechnology, 2017, 9, 58-66.	3.1	15
42	Dynamic characteristics of multi-charged ions emitted from nanosecond laser produced molybdenum plasmas. Journal of Analytical Atomic Spectrometry, 2020, 35, 767-775.	3.0	15
43	Elemental Mapping of Lithium Diffusion in Doped Plant Leaves Using Laser-Induced Breakdown Spectroscopy (LIBS). Applied Spectroscopy, 2019, 73, 387-394.	2.2	14
44	Pulsed-laser deposition of NiMnSb thin films at moderate temperatures. Applied Surface Science, 2002, 197-198, 421-425.	6.1	13
45	Detection of E. coli labeled with metal-conjugated antibodies using lateral-flow assay and laser-induced breakdown spectroscopy. Analytical and Bioanalytical Chemistry, 2020, 412, 1291-1301.	3.7	13
46	Spatial and temporal distribution of metal atoms and their diatomic oxide molecules in femtosecond laser-induced plasmas. Journal of Analytical Atomic Spectrometry, 2018, 33, 1875-1883.	3.0	12
47	Replica molding of picosecond laser fabricated Si microstructures. Applied Physics A: Materials Science and Processing, 2007, 87, 673-677.	2.3	11
48	Laser-Ablation Sampling for Accurate Analysis of Sulfur in Edible Salts. Applied Spectroscopy, 2017, 71, 651-658.	2.2	11
49	Internal mixing dynamics of Cu/Sn-Pb plasmas produced by femtosecond laser ablation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 148, 92-98.	2.9	11
50	Surface particularities in pulsed laser ablation/deposition of the ferromagnetic alloy NiMnSb. Applied Surface Science, 2003, 212-213, 78-84.	6.1	10
51	Solid matrix transformation and tracer addition using molten ammonium bifluoride salt as a sample preparation method for laser ablation inductively coupled plasma mass spectrometry. Analyst, The, 2017, 142, 3333-3340.	3.5	10
52	Elemental Analysis of Asphaltenes Using Simultaneous Laser-Induced Breakdown Spectroscopy (LIBS)â€“Laser Ablation Inductively Coupled Plasma Optical Emission Spectrometry (LA-ICP-OES). Applied Spectroscopy, 2019, 73, 540-549.	2.2	10
53	Properties of Silicon and Metal Oxide Electrowetting Systems. Journal of Adhesion Science and Technology, 2012, 26, 2143-2163.	2.6	8
54	Analysis of Plant Leaves Using Laser Ablation Inductively Coupled Plasma Optical Emission Spectrometry: Use of Carbon to Compensate for Matrix Effects. Applied Spectroscopy, 2017, 71, 709-720.	2.2	8

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55	Remote isotope detection and quantification using femtosecond filament-laser ablation molecular isotopic spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 179, 106117.	2.9	8
56	Reduction of spectral interferences and noise effects in laser ablation molecular isotopic spectrometry with partial least square regression â€“ a computer simulation study. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 122, 75-84.	2.9	7
57	A comprehensive analysis of sialolith proteins and the clinical implications. Clinical Proteomics, 2020, 17, 12.	2.1	7
58	Surface Morphology Studies of Sub-Ps Pulsed-Laser-Deposited AlN Thin Films. Journal of Materials Research, 2004, 19, 820-826.	2.6	5
59	Effects of pulse laser duration and ambient nitrogen pressure in PLD of AlN. Applied Physics A: Materials Science and Processing, 2004, 79, 927-929.	2.3	5
60	Novel Aspects of Materials Processing by Ultrafast Lasers: From Electronic to Biological and Cultural Heritage Applications. Journal of Physics: Conference Series, 2007, 59, 266-272.	0.4	5
61	Ultraviolet laser structuring of silicon carbide for cold cathode applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3309-3313.	0.8	5
62	Spatio-temporal ablation dynamics and plasma chemistry of aluminum induced by temporally modulated ytterbium fiber laser. Applied Physics Letters, 2021, 119, .	3.3	5
63	Temporal and spatial study of differently charged ions emitted by ns-laser-produced tungsten plasmas using time-of-flight mass spectroscopy. Plasma Science and Technology, 2021, 23, 095505.	1.5	4
64	Construction of micron three-dimensional structures employing multi-photon polymerization. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2005, 219, 165-168.	0.1	3
65	Metal coated silicon spike cold-electron emitters show improvement of performance with operation. Applied Physics Letters, 2010, 96, 033501.	3.3	3
66	Combination of high-resolution laser-induced breakdown spectroscopy and least square method for reducing soil carbon overestimation due to iron interference. Geoderma, 2021, 385, 114881.	5.1	3
67	Calcium fluoride as a dominating matrix for quantitative analysis by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS): A feasibility study. Analytica Chimica Acta, 2020, 1129, 24-30.	5.4	2
68	Ultrafast Laser Spectroscopy of Electrode/Electrolyte Interfaces. ECS Transactions, 2013, 50, 39-48.	0.5	1
69	<title>Stoichiometry issues in pulsed laser deposition of the ferromagnetic alloy NiMnSb</title>. , 2002, , .		0
70	Applications of ultrafast lasers in materials processing: fabrication on self-cleaning surfaces and scaffolds for tissue engineering. , 2008, , .		0
71	Laser structured biomimetic artificial surfaces that quantitatively reproduce the water repellency of a Lotus leaf. , 2009, , .		0
72	Multifunctional and responsive surfaces based on fs laser micro/nano structuring of silicon. , 2009, , .		0

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73	3D chemical imaging of Li-ion batteries using femtosecond laser plasma spectroscopy. , 2014, , .		0
74	Femtosecond Filament-Laser Ablation Molecular Isotopic Spectrometry (F2-LAMIS) for Remote Isotope Analysis. , 2017, , .		0