Marcella Dell'Aglio

List of Publications by Year
in descending order

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69 papers	4,685 citations	87723 38 h-index	102304 66 g-index
69 all docs	69 docs citations	69 times ranked	2746 citing authors

#	Article	IF	Citations
1	Local Thermodynamic Equilibrium in Laser-Induced Breakdown Spectroscopy: Beyond the McWhirter criterion. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 86-95.	1.5	514
2	Laser Induced Breakdown Spectroscopy for Elemental Analysis in Environmental, Cultural Heritage and Space Applications: A Review of Methods and Results. Sensors, 2010, 10, 7434-7468.	2.1	235
3	Mechanisms and processes of pulsed laser ablation in liquids during nanoparticle production. Applied Surface Science, 2015, 348, 4-9.	3.1	201
4	From single pulse to double pulse ns-Laser Induced Breakdown Spectroscopy under water: Elemental analysis of aqueous solutions and submerged solid samples. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 721-738.	1.5	193
5	Heavy metal concentrations in soils as determined by laser-induced breakdown spectroscopy (LIBS), with special emphasis on chromium. Environmental Research, 2009, 109, 413-420.	3.7	184
6	Nanoparticle-Enhanced Laser-Induced Breakdown Spectroscopy of Metallic Samples. Analytical Chemistry, 2013, 85, 10180-10187.	3.2	175
7	Cavitation dynamics of laser ablation of bulk and wire-shaped metals in water during nanoparticles production. Physical Chemistry Chemical Physics, 2013, 15, 3083-3092.	1.3	155
8	Experimental and theoretical comparison of single-pulse and double-pulse laser induced breakdown spectroscopy on metallic samples. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 805-816.	1.5	144
9	Nanoparticle Enhanced Laser Induced Breakdown Spectroscopy (NELIBS), a first review. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 148, 105-112.	1.5	143
10	Nanoparticles Engineering by Pulsed Laser Ablation in Liquids: Concepts and Applications. Nanomaterials, 2020, 10, 2317.	1.9	140
11	Laser induced breakdown spectroscopy on meteorites. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1606-1611.	1.5	121
12	Double pulse laser produced plasma on metallic target in seawater: basic aspects and analytical approach. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1431-1438.	1.5	114
13	Nanoparticle Enhanced Laser Induced Breakdown Spectroscopy: Effect of nanoparticles deposited on sample surface on laser ablation and plasma emission. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 98, 19-27.	1.5	111
14	Nanoparticle Enhanced Laser-Induced Breakdown Spectroscopy for Microdrop Analysis at subppm Level. Analytical Chemistry, 2016, 88, 5251-5257.	3.2	109
15	Laser Ablation of Graphite in Water in a Range of Pressure from 1 to 146 atm Using Single and Double Pulse Techniques for the Production of Carbon Nanostructures. Journal of Physical Chemistry C, 2011, 115, 5123-5130.	1.5	103
16	Single Pulse-Laser Induced Breakdown Spectroscopy in aqueous solution. Applied Physics A: Materials Science and Processing, 2004, 79, 1035-1038.	1.1	102
17	Effects of the background environment on formation, evolution and emission spectra of laser-induced plasmas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 78, 1-19.	1.5	102
18	Double-pulse LIBS in bulk water and on submerged bronze samples. Applied Surface Science, 2005, 247, 157-162.	3.1	100

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19	Experimental investigation and modelling of double pulse laser induced plasma spectroscopy under water. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 975-985.	1.5	92
20	The role of continuum radiation in laser induced plasma spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 385-394.	1.5	92
21	Perspective on the use of nanoparticles to improve LIBS analytical performance: nanoparticle enhanced laser induced breakdown spectroscopy (NELIBS). Journal of Analytical Atomic Spectrometry, 2016, 31, 1566-1573.	1.6	82
22	Monitoring of Cr, Cu, Pb, V and Zn in polluted soils by laser induced breakdown spectroscopy (LIBS). Journal of Environmental Monitoring, 2011, 13, 1422.	2.1	71
23	Spatial distribution of hydrogen and other emitters in aluminum laser-induced plasma in air and consequences on spatially integrated Laser-Induced Breakdown Spectroscopy measurements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 980-987.	1.5	69
24	Elemental chemical analysis of submerged targets by double-pulse laser-induced breakdown spectroscopy. Analytical and Bioanalytical Chemistry, 2006, 385, 303-311.	1.9	68
25	Analytical function for lidar geometrical compression form-factor calculations. Applied Optics, 2005, 44, 1323.	2.1	64
26	Laser Induced Breakdown Spectroscopy methodology for the analysis of copper-based-alloys used in ancient artworks. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 585-590.	1.5	62
27	Laser Induced Breakdown Spectroscopy applications to meteorites: Chemical analysis and composition profiles. Geochimica Et Cosmochimica Acta, 2010, 74, 7329-7339.	1.6	62
28	Early stage emission spectroscopy study of metallic titanium plasma induced in air by femtosecond- and nanosecond-laser pulses. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 935-947.	1.5	60
29	Laser-induced breakdown spectroscopy of archaeological findings with calibration-free inverse method: Comparison with classical laser-induced breakdown spectroscopy and conventional techniques. Analytica Chimica Acta, 2014, 813, 15-24.	2.6	59
30	Nanoparticle-Enhanced Laser Induced Breakdown Spectroscopy for the noninvasive analysis of transparent samples and gemstones. Talanta, 2018, 182, 253-258.	2.9	54
31	Laser-induced plasma analysis of copper alloys based on Local Thermodynamic Equilibrium: An alternative approach to plasma temperature determination and archeometric applications. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 74-75, 38-45.	1.5	52
32	ns- and fs-LIBS of copper-based-alloys: A different approach. Applied Surface Science, 2007, 253, 7677-7681.	3.1	48
33	Collinear double pulse laser ablation in water for the production of silver nanoparticles. Physical Chemistry Chemical Physics, 2013, 15, 20868.	1.3	48
34	High productive and continuous nanoparticle fabrication by laser ablation of a wire-target in a liquid jet. Applied Surface Science, 2017, 403, 487-499.	3.1	48
35	A Laser Induced Breakdown Spectroscopy application based on Local Thermodynamic Equilibrium assumption for the elemental analysis of alexandrite gemstone and copper-based alloys. Chemical Physics, 2012, 398, 233-238.	0.9	47
36	On the stability of gold nanoparticles synthesized by laser ablation in liquids. Journal of Colloid and Interface Science, 2017, 489, 47-56.	5.0	45

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37	Plasma processes and emission spectra in laser induced plasmas: A point of view. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 100, 180-188.	1.5	42
38	Silver and gold nanoparticles produced by pulsed laser ablation in liquid to investigate their interaction with Ubiquitin. Applied Surface Science, 2016, 374, 297-304.	3.1	40
39	Multi-methodological investigation of kunzite, hiddenite, alexandrite, elbaite and topaz, based on laser-induced breakdown spectroscopy and conventional analytical techniques for supporting mineralogical characterization. Physics and Chemistry of Minerals, 2014, 41, 127-140.	0.3	34
40	Carbon-Based Nanostructures Obtained in Water by Ultrashort Laser Pulses. Journal of Physical Chemistry C, 2011, 115, 5160-5164.	1.5	33
41	On the growth mechanism of nanoparticles in plasma during pulsed laser ablation in liquids. Plasma Sources Science and Technology, 2017, 26, 045002.	1.3	31
42	Application of gold nanoparticles embedded in the amyloids fibrils as enhancers in the laser induced breakdown spectroscopy for the metal quantification in microdroplets. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 155, 115-122.	1.5	29
43	Double pulse laser induced breakdown spectroscopy of a solid in water: Effect of hydrostatic pressure on laser induced plasma, cavitation bubble and emission spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 133, 63-71.	1.5	28
44	Plasma charging effect on the nanoparticles releasing from the cavitation bubble to the solution during nanosecond Pulsed Laser Ablation in Liquid. Applied Surface Science, 2020, 515, 146031.	3.1	28
45	Stand-off laser induced breakdown spectroscopy on meteorites: calibration-free approach. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 147, 87-92.	1.5	27
46	Effect of spherical gold nanoparticles size on nanoparticle enhanced Laser Induced Breakdown Spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 179, 106105.	1.5	27
47	Study of the Effect of Water Pressure on Plasma and Cavitation Bubble Induced by Pulsed Laser Ablation in Liquid of Silver and Missed Variations of Observable Nanoparticle Features. ChemPhysChem, 2017, 18, 1165-1174.	1.0	26
48	â€œNakedâ€•gold nanoparticles as colorimetric reporters for biogenic amine detection. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 600, 124903.	2.3	26
49	Amyloid Transition of Ubiquitin on Silver Nanoparticles Produced by Pulsed Laser Ablation in Liquid as a Function of Stabilizer and Singleâ€Point Mutations. Chemistry - A European Journal, 2014, 20, 10745-10751.	1.7	24
50	Nanoparticle enhanced laser ablation and consequent effects on laser induced plasma optical emission. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 166, 105794.	1.5	23
51	Pulsed laser ablation of wire-shaped target in a thin water jet: effects of plasma features and bubble dynamics on the PLAL process. Journal Physics D: Applied Physics, 2017, 50, 185204.	1.3	22
52	Investigation on the material in the plasma phase by high temporally and spectrally resolved emission imaging during pulsed laser ablation in liquid (PLAL) for NPs production and consequent considerations on NPs formation. Plasma Sources Science and Technology, 2019, 28, 085017.	1.3	22
53	Laser Induced Breakdown Spectroscopy of meteorites as a probe of the early solar system. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 101, 68-75.	1.5	21
54	Optical emission spectroscopy investigation of an ultra-short laser induced titanium plasma reheated by a ns laser pulse. Applied Surface Science, 2007, 253, 7792-7797.	3.1	20

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55	Elemental Composition Analysis of Plants and Composts Used for Soil Remediation by Laserâ€Induced Breakdown Spectroscopy. Clean - Soil, Air, Water, 2014, 42, 791-798.	0.7	19
56	Effect of the Surface Chemical Composition and of Added Metal Cation Concentration on the Stability of Metal Nanoparticles Synthesized by Pulsed Laser Ablation in Water. Applied Sciences (Switzerland), 2020, 10, 4169.	1.3	14
57	Spectroscopic investigation of laserâ€“water interaction beyond the breakdown threshold energy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 87-93.	1.5	12
58	Comparison between laser induced plasmas in gas and in liquid. Journal of Applied Physics, 2021, 129, .	1.1	12
59	Sensing nanoparticle-protein corona using nanoparticle enhanced Laser Induced Breakdown Spectroscopy signal enhancement. Talanta, 2021, 235, 122741.	2.9	11
60	A Quantum Chemistry Approach Based on the Analogy with Ï€-System in Polymers for a Rapid Estimation of the Resonance Wavelength of Nanoparticle Systems. Nanomaterials, 2019, 9, 929.	1.9	10
61	Gold nanoparticles obtained by ns-pulsed laser ablation in liquids (ns-PLAL) are arranged in the form of fractal clusters. Journal of Nanoparticle Research, 2021, 23, 1.	0.8	9
62	Nanoparticle enhanced laser ablation inductively coupled plasma mass spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 163, 105731.	1.5	8
63	Development of a Ti:Sapphire DIAL system for pollutant monitoring and meteorological applications. Optics and Lasers in Engineering, 2002, 37, 233-244.	2.0	6
64	‹title›First results obtained with a lidar fluorescence sensor system‹/title›. , 2000, , .		3
65	Femtosecond/Nanosecond dual-pulse orthogonal geometry plasma plume reheating for compositional analysis of ancient copper-based-alloy artworks. Journal of Physics: Conference Series, 2007, 59, 585-590.	0.3	3
66	Optical Diagnostics during Pulsed Laser Ablation in Liquid (PLAL) for the Production of Metallic Nanoparticles. Applied Sciences (Switzerland), 2021, 11, 10344.	1.3	3
67	Reply to Comment on â€œNanoparticle Enhanced Laser-Induced Breakdown Spectroscopy for Microdrop Analysis at subppm Levelâ€• Analytical Chemistry, 2016, 88, 9871-9872.	3.2	2
68	Lidar system for depolarization ratio measurements: development and preliminary results. , 2003, 5059, 212.		1
69	Fundamental Study and Analytical Applications of Nanoparticle-Enhanced Laser-Induced Breakdown Spectroscopy (NELIBS) of Metals, Semiconductors and Insulators. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 505-506.	0.2	0