Rinda Hedwig

List of Publications by Year
in descending order

90 papers	1,024 citations	430874 18 h-index	580821 25 g-index
91 all docs	91 docs citations	91 times ranked	459 citing authors

#	Article	IF	Citations
1	Direct analysis of powder samples using transversely excited atmospheric CO2 laser-induced gas plasma at 1 atm. Analytical and Bioanalytical Chemistry, 2011, 400, 3279-3287.	3.7	41
2	Quantitative Hydrogen Analysis of Zircaloy-4 Using Low-Pressure Laser Plasma Technique. Analytical Chemistry, 2007, 79, 2703-2707.	6.5	38
3	An improved approach for hydrogen analysis in metal samples using single laser-induced gas plasma and target plasma at helium atmospheric pressure. Applied Physics B: Lasers and Optics, 2006, 82, 161-166.	2.2	33
4	Quantitative Analysis of Deuterium in Zircaloy Using Double-Pulse Laser-Induced Breakdown Spectrometry (LIBS) and Helium Gas Plasma without a Sample Chamber. Analytical Chemistry, 2012, 84, 2224-2231.	6.5	33
5	Subtarget Effect on Laser Plasma Generated by Transversely Excited Atmospheric CO2Laser at Atmospheric Gas Pressure. Japanese Journal of Applied Physics, 2000, 39, 2643-2646.	1.5	30
6	Characteristics of Hydrogen Emission in Laser Plasma Induced by Focusing Fundamental Q-sw YAG Laser on Solid Samples. Japanese Journal of Applied Physics, 2004, 43, 4221-4228.	1.5	30
7	Characterization and Performance Evaluation of Cellulose Acetateâ€“Polyurethane Film for Lead II Ion Removal. Polymers, 2020, 12, 1317.	4.5	29
8	Shock wave plasma induced by TEA CO2 laser bombardment on glass samples at high pressures. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2000, 55, 1591-1599.	2.9	28
9	The role of He in enhancing the intensity and lifetime of H and D emissions from laser-induced atmospheric-pressure plasma. Journal of Applied Physics, 2009, 105, .	2.5	27
10	Preliminary analysis of C and H in a â€œSangiranâ€•fossil using laser-induced plasma at reduced pressure. Journal of Applied Physics, 2005, 98, 093307.	2.5	26
11	Hâ€“D Analysis Employing Energy Transfer from Metastable Excited-State He in Double-Pulse LIBS with Low-Pressure He Gas. Analytical Chemistry, 2019, 91, 1571-1577.	6.5	26
12	Detection of deuterium and hydrogen using laser-induced helium gas plasma at atmospheric pressure. Journal of Applied Physics, 2005, 98, 093302.	2.5	25
13	Some notes on the role of meta-stable excited state of helium atom in laser-induced helium gas breakdown spectroscopy. Applied Physics B: Lasers and Optics, 2007, 86, 729-734.	2.2	25
14	Filler-Modified Castor Oil-Based Polyurethane Foam for the Removal of Aqueous Heavy Metals Detected Using Laser-Induced Breakdown Spectroscopy (LIBS) Technique. Polymers, 2020, 12, 903.	4.5	23
15	Quantitative hydrogen analysis of zircaloy-4 in laser-induced breakdown spectroscopy with ambient helium gas. Applied Optics, 2007, 46, 8298.	2.1	22
16	Hydrogen analysis in solid samples using laser-induced helium plasma at atmospheric pressure. Journal of Applied Physics, 2005, 98, 043105.	2.5	20
17	Quantitative Analysis of Deuterium Using Laser-Induced Plasma at Low Pressure of Helium. Analytical Chemistry, 2006, 78, 5768-5773.	6.5	20
18	Application of picosecond laser-induced breakdown spectroscopy to quantitative analysis of boron in meatballs and other biological samples. Applied Optics, 2016, 55, 8986.	2.1	20

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19	Food analysis employing high energy nanosecond laser and low pressure He ambient gas. Microchemical Journal, 2019, 147, 356-364.	4.5	19
20	Double pulse spectrochemical analysis using orthogonal geometry with very low ablation energy and He ambient gas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 69, 56-60.	2.9	18
21	Coincidence of Density Jump and Plasma Emission Front Induced by Transversely Excited Atmospheric-Pressure CO2 Laser Bombardment at Low and High Pressures. Japanese Journal of Applied Physics, 2000, 39, L601-L603.	1.5	16
22	Suppression of self-absorption in laser-induced breakdown spectroscopy using a double pulse orthogonal configuration to create vacuum-like conditions in atmospheric air pressure. Scientific Reports, 2020, 10, 13278.	3.3	16
23	Evidence of feasible hardness test on Mars using ratio of ionic/neutral emission intensities measured with laser-induced breakdown spectroscopy in low pressure CO2 ambient gas. Journal of Applied Physics, 2016, 119, .	2.5	16
24	The Role of Sub-Target in the Transversely Excited Atmospheric Pressure CO2Laser-Induced Shock-Wave Plasma. Japanese Journal of Applied Physics, 1998, 37, 6628-6632.	1.5	15
25	Spectrochemical analysis of powder using 355 nm Nd-YAG laser-induced low-pressure plasma. Analytical and Bioanalytical Chemistry, 2008, 390, 1781-1787.	3.7	14
26	Spectral and Dynamic Characteristics of Helium Plasma Emission and its Effect on a Laser-Ablated Target Emission in a Double-Pulse Laser-Induced Breakdown Spectroscopy (LIBS) Experiment. Applied Spectroscopy, 2015, 69, 115-123.	2.2	14
27	Sensitive analysis of carbon, chromium and silicon in steel using picosecond laser induced low pressure helium plasma. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 114, 1-6.	2.9	14
28	H-D Analysis Employing Low-Pressure microjoule Picosecond Laser-Induced Breakdown Spectroscopy. Analytical Chemistry, 2017, 89, 4951-4957.	6.5	14
29	Confinement effect in enhancing shock wave plasma generation at low pressure by TEA CO2 laser bombardment on quartz sample. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2003, 58, 531-542.	2.9	13
30	Comparative study of laser-induced plasma emission of hydrogen from zircaloy-2 samples in atmospheric and low pressure ambient helium gas. Applied Physics B: Lasers and Optics, 2007, 89, 291-298.	2.2	13
31	A novel double-pulse laser plasma spectroscopic technique for H analysis in metal samples utilizing transversely excited atmospheric-pressure CO2 laser-induced metastable He atoms. Optical Review, 2010, 17, 285-289.	2.0	13
32	Excitation Mechanism of H, He, C, and F Atoms in Metal-Assisted Atmospheric Helium Gas Plasma Induced by Transversely Excited Atmospheric-Pressure CO₂ Laser Bombardment. Japanese Journal of Applied Physics, 2011, 50, 122701.	1.5	13
33	Plasma emission induced by an Nd-YAG laser at low pressure on solid organic sample, its mechanism, and analytical application. Journal of Applied Physics, 2005, 97, 053305.	2.5	12
34	Study of Hydrogen and Deuterium Emission Characteristics in Laser-Induced Low-Pressure Helium Plasma for the Suppression of Surface Water Contamination. Analytical Chemistry, 2008, 80, 1240-1246.	6.5	12
35	Intensity distributions of enhanced H emission from laser-induced low-pressure He plasma and a suggested He-assisted excitation mechanism. Journal of Applied Physics, 2009, 106, 043303.	2.5	12
36	Comparative study of Nd:YAG laser-induced breakdown spectroscopy and transversely excited atmospheric CO₂ laser-induced gas plasma spectroscopy on chromated copper arsenate preservative-treated wood. Applied Optics, 2012, 51, B121.	1.8	12

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37	Enhancement of carbon detection sensitivity in laser induced breakdown spectroscopy with low pressure ambient helium gas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 151, 26-32.	2.9	12
38	Suppression of self-absorption effect in laser-induced breakdown spectroscopy by employing a Penning-like energy transfer process in helium ambient gas. Optics Express, 2020, 28, 9259.	3.4	12
39	Observation of exclusively He-induced H emission in cooled laser plasma. Journal of Applied Physics, 2011, 109, 103305.	2.5	11
40	Deuterium analysis in zircaloy using ps laser-induced low pressure plasma. Journal of Applied Physics, 2011, 110, 063301.	2.5	11
41	Hydrogen analysis in metal samples by selective detection method utilizing TEA CO2 laser-induced He gas plasma. Applied Physics A: Materials Science and Processing, 2010, 101, 555-558.	2.3	10
42	Toward quantitative deuterium analysis with laser-induced breakdown spectroscopy using atmospheric-pressure helium gas. Journal of Applied Physics, 2010, 107, 023301.	2.5	10
43	Quantitative Deuterium Analysis of Titanium Samples in Ultraviolet Laser-Induced Low-Pressure Helium Plasma. Applied Spectroscopy, 2010, 64, 365-369.	2.2	10
44	Practical and highly sensitive elemental analysis for aqueous samples containing metal impurities employing electrodeposition on indium-tin oxide film samples and laser-induced shock wave plasma in low-pressure helium gas. Applied Optics, 2015, 54, 7592.	2.1	10
45	Preliminary study on detection sediment contamination in soil affected by the Indian Ocean giant tsunami 2004 in Aceh, Indonesia using laser-induced breakdown spectroscopy (LIBS). AIP Conference Proceedings, 2016, , .	0.4	10
46	Human tracking in certain indoor and outdoor area by combining the use of RFID and GPS. , 2016, , .		10
47	Low Pressure Plasma Confined in a Miniature Cylindrical Chamber and Its Application forIn-SituElemental Analysis. Japanese Journal of Applied Physics, 2005, 44, 202-209.	1.5	9
48	Film analysis employing subtarget effect using 355Ânm Nd-YAG laser-induced plasma at low pressure. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2006, 61, 1285-1293.	2.9	9
49	Direct evidence of mismatching effect on H emission in laser-induced atmospheric helium gas plasma. Journal of Applied Physics, 2013, 113, 053301.	2.5	8
50	Rapid Detection of Oil Pollution in Soil by Using Laser-Induced Breakdown Spectroscopy. Plasma Science and Technology, 2016, 18, 1186-1191.	1.5	8
51	Shock wave plasma generation in low pressure ambient gas from powder sample using subtarget supported micro mesh as a sample holder and its potential applications for sensitive analysis of powder samples. Microchemical Journal, 2018, 142, 108-116.	4.5	8
52	Underlying Physical Process for the Unusual Spectral Quality of Double Pulse Laser Spectroscopy in He Gas. Analytical Chemistry, 2019, 91, 7864-7870.	6.5	7
53	Voice processing for COVID-19 scanning and prognostic indicator. Heliyon, 2021, 7, e08134.	3.2	7
54	Confinement Effect of Primary Plasma on Glass Sample Induced by Irradiation of Nd-YAG Laser at Low Pressure. Japanese Journal of Applied Physics, 2001, 40, 5938-5941.	1.5	6

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55	Emission characteristics of hydrogen in atmospheric helium gas plasma induced by TEA CO2 laser bombardment on zircaloy sample containing hydrogen. Journal of Analytical Atomic Spectrometry, 2011, 26, 1451.	3.0	6
56	Excitation mechanisms in 1â€‰mJ picosecond laser induced low pressure He plasma and the resulting spectral quality enhancement. Journal of Applied Physics, 2015, 117, .	2.5	6
57	Determination of Micronutrients and Toxic Elements in Moringa Oleifera Leaves by Calibration Free Laser-Induced Breakdown Spectroscopy (LIBS). Analytical Letters, 2022, 55, 755-769.	1.8	6
58	Analytical Approach of Laser-Induced Breakdown Spectroscopy to Detect Elemental Profile of Medicinal Plants Leaves. Indonesian Journal of Chemistry, 2019, 19, 430.	0.8	6
59	Excitation Mechanism of H, He, C, and F Atoms in Metal-Assisted Atmospheric Helium Gas Plasma Induced by Transversely Excited Atmospheric-Pressure CO₂Laser Bombardment. Japanese Journal of Applied Physics, 2011, 50, 122701.	1.5	6
60	Quantitative and sensitive analysis of CN molecules using laser induced low pressure He plasma. Journal of Applied Physics, 2015, 117, .	2.5	5
61	Low pressure micro-Joule picosecond laser-induced breakdown spectroscopy and its prospective applications to minimally destructive and high resolution analysis. Japanese Journal of Applied Physics, 2017, 56, 096201.	1.5	5
62	Unusual parallel laser irradiation for suppressing self-absorption in single pulse laser-induced breakdown spectroscopy. Optics Express, 2021, 29, 22593.	3.4	5
63	Nanosecond Nd-YAG laser induced plasma emission characteristics in low pressure CO2 ambient gas for spectrochemical application on Mars. Journal of Applied Physics, 2015, 118, 083304.	2.5	4
64	Signal enhancement of neutral He emission lines by fast electron bombardment of laser-induced He plasma. AIP Advances, 2016, 6, 085105.	1.3	4
65	Elemental detection of arabica and robusta green bean coffee using laser-induced plasma spectroscopy. AIP Conference Proceedings, 2017, , .	0.4	4
66	Quantification of rare earth elements with low pressure laser induced breakdown spectroscopy employing subtarget supported micro mesh sample holder. Journal of Laser Applications, 2019, 31, .	1.7	4
67	A comprehensive study of H emission in a TEA CO2 laser-induced helium gas plasma for highly sensitive analysis of hydrogen in metal samples. Journal of the Korean Physical Society, 2012, 61, 49-54.	0.7	3
68	A comparative study of emission efficiencies in low-pressure argon plasmas induced by picosecond and nanosecond Nd:YAG lasers. Japanese Journal of Applied Physics, 2016, 55, 116101.	1.5	3
69	Emission Spectrochemical Analysis of Soft Samples Including Raw Fish by Employing Laser-Induced Breakdown Spectroscopy with a Subtarget at Low-Pressure Helium Gas. ACS Omega, 2020, 5, 16811-16818.	3.5	3
70	High sensitivity hydrogen analysis in zircaloy-4 using helium-assisted excitation laser-induced breakdown spectroscopy. Scientific Reports, 2021, 11, 21999.	3.3	3
71	A Comparative Study of Pressure-Dependent Emission Characteristics in Different Gas Plasmas Induced by Nanosecond and Picosecond Neodymium-Doped Yttrium Aluminum Garnet (Nd:YAG) Lasers. Applied Spectroscopy, 2013, 67, 1285-1295.	2.2	2
72	Examination of the capability of the laser-induced breakdown spectroscopy (LIBS) technique as the emerging laser-based analytical tool for analyzing trace elements in coal. AIP Conference Proceedings, 2014, , .	0.4	2

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73	Preferential triplet over singlet emission of Zn in laser-induced plasmas. Japanese Journal of Applied Physics, 2017, 56, 066101.	1.5	2
74	Underlying physical processes for time dependent variations of He triplet and singlet intensities in laser-induced He plasma. Journal of Applied Physics, 2020, 127, 243303.	2.5	2
75	Rapid powder analysis with laser-induced breakdown spectroscopy at low pressure ambient helium gas employing bamboo charcoal as a sample holder. Journal of Laser Applications, 2020, 32, .	1.7	2
76	Comparison of excitation mechanisms and the corresponding emission spectra in femto second and nano second laser-induced breakdown spectroscopy in reduced ambient air and their performances in surface analysis. Journal of Laser Applications, 2020, 32, 012014.	1.7	2
77	Effects of mass difference on pressure-dependent emission characteristics in laser-induced plasma spectroscopy. Applied Physics B: Lasers and Optics, 2006, 85, 631-636.	2.2	1
78	Preliminary panoramic study of river calm muscle using neodymium:yttrium-aluminum-garnet (Nd:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 012057.	0.4	1
79	Modified Line-Maze Algorithm for Mobile Robot Navigation. Procedia Engineering, 2012, 50, 740-747.	1.2	1
80	Joint Experiments on X-rayâˆ•Particle Emission from Plasmas Produced by Laser Irradiating Nano Structured Targets. AIP Conference Proceedings, 2008, , .	0.4	0
81	Solar Panel System for Street Light Using Maximum Power Point Tracking (MPPT) Technique. EPJ Web of Conferences, 2014, 68, 00017.	0.3	0
82	Implementation of vertical multistage centrifugal pump system for villages at an altitude of Â± 1200m above sea level in Sipahutar â€“ North Sumatera area. IOP Conference Series: Earth and Environmental Science, 2017, 109, 012013.	0.3	0
83	Stabilizing system for quadrotor copter like flying robot by using proportional-integral-derivative (PID) controller. IOP Conference Series: Earth and Environmental Science, 2018, 195, 012067.	0.3	0
84	Simulation of Mitsubishi RV-M1 Robotic Arms by Using MATLABÂ® for High School Teaching. IOP Conference Series: Materials Science and Engineering, 2019, 598, 012104.	0.6	0
85	Navigation assistant for vision impaired people using ultra sonic (sonar vision) and global positioning system (GPS). IOP Conference Series: Earth and Environmental Science, 2020, 426, 012142.	0.3	0
86	Quantitative Analysis of Liquid by Quick Freezing Into Ice Using Nd-YAG Laser-Induced Atmospheric Plasma. ITB Journal of Engineering Science, 2005, 37, 49-65.	0.1	0
87	Emission Characteristics of Ca and Mg Atoms in Gas Plasma Induced by the Bombardment of Transversely Excited Atmospheric CO₂Laser at 1 atm. Japanese Journal of Applied Physics, 2012, 51, 082403.	1.5	0
88	Web-Based Open Loop Remote Control Robot. Procedia Engineering, 2012, 50, 52-58.	1.2	0
89	Lazy Susan Calorie Monitoring Dining Table Based on Raspberry Pi. , 2021, , .		0
90	Microcontroller-based Seismic-ShakingIntensity Meter. Procedia Engineering, 2012, 50, 586-591.	1.2	0