

M A Baig

List of Publications by Year in descending order

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125
papers

2,365
citations

257450

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125
all docs

125
docs citations

125
times ranked

1145
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of electron density and temperature of a laser-induced zinc plasma. Journal Physics D: Applied Physics, 2006, 39, 1384-1391.	2.8	142
2	Detection of heavy metals in Arabian crude oil residue using laser induced breakdown spectroscopy. Talanta, 2006, 69, 1072-1078.	5.5	114
3	Spectroscopic studies of laser induced aluminum plasma using fundamental, second and third harmonics of a Nd:YAG laser. European Physical Journal D, 2007, 44, 371-379.	1.3	81
4	The role of various binding materials for trace elemental analysis of powder samples using laser-induced breakdown spectroscopy. Talanta, 2007, 72, 642-649.	5.5	77
5	A comparative study of single and double pulse of laser induced breakdown spectroscopy of silver. Physics of Plasmas, 2011, 18, .	1.9	73
6	On-line monitoring of remediation process of chromium polluted soil using LIBS. Journal of Hazardous Materials, 2009, 163, 1265-1271.	12.4	68
7	Spectroscopic studies of Ca plasma generated by the fundamental, second, and third harmonics of a Nd:YAG laser. Laser and Particle Beams, 2008, 26, 41-50.	1.0	57
8	Rydberg structure within a broad resonance. Journal of Physics B: Atomic and Molecular Physics, 1985, 18, 3507-3527.	1.6	54
9	Spectroscopic characterization of laser ablation brass plasma. Journal of Applied Physics, 2008, 104, .	2.5	48
10	Centrifugal barrier effects in the high Rydberg states and autoionising resonances of neon. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, 1785-1796.	1.6	47
11	Quasi-atomic Rydberg states of a complex molecule: CH ₃ I. Journal of Physics B: Atomic and Molecular Physics, 1981, 14, L25-L29.	1.6	45
12	Laser isotope separation of lithium by two-step photoionization. Journal of Applied Physics, 2006, 100, 053111.	2.5	43
13	Diagnostics of cadmium plasma produced by laser ablation. Journal of Applied Physics, 2006, 100, 073102.	2.5	43
14	A Comparative Study of Calibration Free Methods for the Elemental Analysis by Laser Induced Breakdown Spectroscopy. Plasma Chemistry and Plasma Processing, 2016, 36, 1287-1299.	2.4	42
15	Plasma properties of laser-ablated strontium target. Journal of Applied Physics, 2008, 103, 083117.	2.5	41
16	Optical emission studies of the mercury plasma generated by the fundamental, second and third harmonics of a Nd:YAG laser. Journal Physics D: Applied Physics, 2006, 39, 4377-4385.	2.8	38
17	On the Optimization for Enhanced Dual-Pulse Laser-Induced Breakdown Spectroscopy. IEEE Transactions on Plasma Science, 2010, 38, 2052-2055.	1.3	31
18	Molecular Rydberg transitions. Multichannel approaches to electronic states: CH ₃ I. Physical Review A, 1981, 24, 2485-2490.	2.5	29

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19	High Rydberg transitions in the principal and intercombination series of mercury. Journal of Physics B: Atomic and Molecular Physics, 1983, 16, 1511-1523.	1.6	29
20	Spatial diagnostics of the laser induced lithium fluoride plasma. Physics of Plasmas, 2012, 19, 063304.	1.9	29
21	High-resolution measurements and multichannel quantum defect analysis of the Kr(4p5(2P1/2)nd',J=) Tj ETQq1 1 0.784314 rgBT /Ove 1549-1568.	1.5	27
22	Photoionization cross section measurements of the 3p1,3 excited states of helium in the near-threshold region. Physical Review A, 2006, 74, .	2.5	27
23	Simultaneous measurements of photoionization cross-sections of lithium isotopes from 3p2P1/2, 3/2. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 5025-5035.	1.5	26
24	Analysis of lead and copper in soil samples by laser-induced breakdown spectroscopy under external magnetic field. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	26
25	Measurement of photoionization cross section from the 3s3p1P1 excited state of magnesium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 2291-2305.	1.5	25
26	Alternate technique for simultaneous measurement of photoionization cross-section of isotopes by TOF mass spectrometer. European Physical Journal D, 2006, 38, 277-283.	1.3	24
27	Two-photon optogalvanic spectra of argon: odd parity Rydberg states. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 1151-1162.	1.5	23
28	Measurement of the photoionization cross-section of the 3p 2P1/2, 3/2 excited levels of sodium. European Physical Journal D, 2006, 37, 23-28.	1.3	23
29	Measurements of oscillator strengths of the 2p5(2P1/2)ndj= 2, 3 autoionizing resonances in neon. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 2299-2313.	1.5	23
30	Substrate temperature effects on the structural, compositional, and electrical properties of VO ₂ thin films deposited by pulsed laser deposition. Surface and Interface Analysis, 2018, 50, 297-303.	1.8	23
31	The high resolution subvalenced-shell absorption spectrum of zinc I. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1987, 4, 313-328.	1.0	22
32	New high-resolution studies of the 5p spectrum of Ba. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, 371-379.	1.6	21
33	Two-colour three photon resonance excitation spectra of lithium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, L351-L357.	1.5	21
34	Measurement of oscillator strength distribution in the discrete and continuous spectrum of lithium. Physical Review A, 2007, 75, .	2.5	21
35	Spectroscopic Studies of the Laser Produced Lead Plasma. Plasma Science and Technology, 2011, 13, 129-134.	1.5	21
36	Many-body effects in the 4p spectrum of strontium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1990, 23, 713-726.	1.5	20

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37	High-resolution photoabsorption measurement and multichannel quantum-defect-theory analysis of the 2p53s(1P1)ns,ndautoionizing series of sodium. Physical Review A, 1994, 50, 2750-2753.	2.5	20
38	On the first ionization potential of lithium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, S77-S86.	1.5	20
39	Optical spectroscopic studies of titanium plasma produced by an Nd : YAG laser. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 114, 7-14.	0.6	20
40	The interchannel interaction between single excitation from 4f14and double excitation from 6s2in Yb I. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, L469-L474.	1.6	19
41	Experimental and theoretical investigation of odd 5p51/2nlÂ autoionizing resonances in xenon atoms: energy dependence of the reduced widths. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 1987-2009.	1.5	19
42	Photoionization cross-section measurements from the 2p, 3d and 3s excited states of lithium. European Physical Journal D, 2006, 40, 331-337.	1.3	19
43	Angular momentum dependence of photoionization cross sections from the excited states of lithium. Physical Review A, 2006, 74, .	2.5	19
44	Interaction of the $6p \times 2s$ S	2.5	19
45	Two-photon laser-optogalvanic spectroscopy of the odd-parity Rydberg series of krypton. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 2155-2165.	1.5	18
46	Spatial diagnostics of the laser-produced tin plasma in air. Laser Physics, 2016, 26, 076001.	1.2	18
47	Inner shell and double excitation spectrum of ytterbium involving the 4f and 6s subshells. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 321-341.	1.5	17
48	Absolute photoionization cross section from the 6s6p1,3P1excited states of barium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 2307-2319.	1.5	17
49	Plasma Diagnostic Study of Alumina (Al_2O_3) Generated by the Fundamental and Second Harmonics of a Nd:YAG Laser. IEEE Transactions on Plasma Science, 2011, 39, 1861-1867.	1.3	17
50	Oscillator strength measurements of the 3p \hat{a}^1_1 nd Rydberg transitions of sodium. European Physical Journal D, 2007, 44, 9-16.	1.3	16
51	Inner shell and double excitation spectrum of sodium involving 2p and 3s subshells. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 389-404.	1.5	15
52	Two-photon optogalvanic Rydberg spectra of neon. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 2525-2538.	1.5	15
53	A high-resolution study of the principal series of Sr I. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, L271-L274.	1.6	14
54	Two-step laser excitation of the even-parity Rydberg levels of lead. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 2875-2889.	1.5	14

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55	Measurements of photoionization cross sections from the 5s5p1P1 and 5s6s1S0 excited states of strontium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 1587-1596.	1.5	14
56	Laser-based optical emission studies of barium plasma. <i>Applied Physics B: Lasers and Optics</i> , 2013, 110, 563-571.	2.2	14
57	Grain Size and Interface Dependence of Bias Stress Stability of n-Type Organic Field Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22380-22384.	8.0	14
58	Autoionisation in polyatomic molecules. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1981, 14, L67-L71.	1.6	13
59	New high-resolution study of the 6s subshell spectrum of Tl I. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1985, 18, 3487-3497.	1.6	13
60	Centrifugal barrier effects in the 3p spectrum of calcium. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1987, 20, L771-L775.	1.6	13
61	Two-colour three-photon excitation of the 6snf1,3F3 and 6snp1P1,3P1,2Rydberg levels of Yb I. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999, 32, 953-965.	1.5	13
62	Two-step laser spectroscopy of the even-parity Rydberg levels of neutral tin. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999, 32, 5669-5679.	1.5	13
63	Laser optogalvanic measurements and line-shape analysis of 5p57p and 5p54â€“5f autoionizing resonances in xenon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, S65-S75.	1.5	13
64	Photoionization cross section and oscillator strength distribution in the near-threshold region of strontium. <i>European Physical Journal D</i> , 2007, 44, 439-447.	1.3	13
65	Two-step laser excitation of 5p3/2np,nf= 1 and 2 autoionizing Rydberg levels of tin. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, 3729-3741.	1.5	12
66	Two-step laser excitation of the even parity 5p1/2np and nf= 1,2 Rydberg levels of neutral tin. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, 2407-2417.	1.5	12
67	Two-step laser excitation of 4snd3D1,2,3 and 4sns3S1 states from the 4s4p3P levels in zinc. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 871-881.	1.5	12
68	DIAGNOSTICS OF COPPER PLASMA PRODUCED BY THE FUNDAMENTAL, SECOND AND THIRD HARMONICS OF A Nd:YAG LASER. <i>International Journal of Modern Physics B</i> , 2007, 21, 2697-2710.	2.0	12
69	On the Rydberg transitions and elemental compositions in the laser produced Al (6063) plasma. <i>Physics of Plasmas</i> , 2011, 18, 083303.	1.9	12
70	High-resolution photoabsorption study of the 3d spectrum of chromium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1990, 23, 3489-3509.	1.5	11
71	Photoionization cross sections of doubly excited resonances in ytterbium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1992, 25, 1393-1404.	1.5	11
72	Laser optogalvanic spectroscopic studies of xenon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, 4017-4028.	1.5	11

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73	Three-colour four-photon resonant excitation of the even-parity autoionizing resonances in Yb I. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 4361-4371.	1.5	11
74	Laser optogalvanic spectroscopy of 5p5nfj= 1-5 even-parity Rydberg levels of xenon. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4647-4655.	1.5	11
75	Two-step laser optogalvanic spectroscopy of the odd-parity Rydberg states of atomic mercury. European Physical Journal D, 2004, 28, 323-330.	1.3	11
76	The study of dominant physical processes in the time-resolved optogalvanic spectra of neon. European Physical Journal D, 2005, 36, 1-9.	1.3	11
77	Measurement of the oscillator strength distribution in helium. Physical Review A, 2007, 76, .	2.5	11
78	Oscillator strength measurements of the $S_{5/2}$ state of atomic sodium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 115701.	2.5	11
79	Structural, compositional and hardness properties of hydrogenated amorphous carbon nitride thin films synthesized by dense plasma focus device. Surface and Interface Analysis, 2017, 49, 548-553.	1.8	11
80	Autoionizing resonances in the 4d subshell excitation spectrum of cadmium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 1693-1708.	1.5	10
81	Resonantly enhanced ns and nd Rydberg spectroscopy of sodium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 1421-1432.	1.5	10
82	Photoexcitation study of the $4s^2 S_{1/2}$ state of atomic sodium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 115701.	1.5	10
83	Laser Based Optical Emission Studies of Zinc Oxide (ZnO) Plasma. Plasma Chemistry and Plasma Processing, 2013, 33, 1167-1178.	2.5	10
84	Multi-photon excitation spectra of the $3s n \ell$ ($\ell = 0, 1, 2$ and 3) Rydberg states of magnesium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 3181-3196.	1.5	9
85	Elemental Analysis of Stones Using Laser-Induced Breakdown Spectroscopy. IEEE Transactions on Plasma Science, 2015, 43, 2636-2641.	1.3	9
86	On the compositional analysis of Coal using calibration free laser induced breakdown spectroscopy. Laser Physics, 2019, 29, 036101.	1.2	9
87	Determination of partial photoionisation cross sections of methyl bromide in the first autoionisation range by use of spin polarisation photoelectron spectroscopy. Journal of Physics B: Atomic and Molecular Physics, 1983, 16, L1-L6.	1.6	8
88	Inner-shell and double-excitation spectrum of rubidium involving 4p and 5s subshells. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 1777-1792.	1.5	8
89	Two-step laser spectroscopy of the highly excited even-parity levels of cadmium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 867-875.	1.5	8

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91	Laser optogalvanic observations and MQDT analysis of $5nd\ ^3P_1$ autoionizing resonances in Ar, Kr and Xe. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 4221-4229.	1.5	8
92	Elemental Analysis of Black Salt by Laser-Induced Breakdown Spectroscopy and Inductively Coupled Plasma-Optical Emission Spectroscopy. Analytical Letters, 2016, 49, 2108-2118.	1.8	8
93	Experimental studies of the oscillator strengths of the $6s6p\ ^3P_1$ \rightarrow $6snd\ ^1,3D_2$ Rydberg transitions in barium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 4317-4331.	1.5	7
94	Line shape parameters study of the $6p7p$ ($1P_1$, $3D_1$ and $3P_1$): Autoionizing resonances in barium. European Physical Journal D, 2007, 41, 229-236.	1.3	7
95	Oscillator strengths of the $4s4p\ ^1,3P_1$ \rightarrow $4snd\ ^1,3D_2$ transitions of neutral calcium. European Physical Journal D, 2008, 50, 1-8.	1.3	7
96	Angular momentum dependence of photoionization cross section from the excited states of lithium isotopes. Physical Review A, 2008, 77, .	2.5	7
97	Spectrochemical analysis of dates available in Pakistan using laser induced breakdown spectroscopy (LIBS) and laser ablation time-of-flight mass spectrometer (LA-TOF-MS). Laser Physics, 2019, 29, 085602.	1.2	7
98	The absorption spectrum of Tl in the vacuum ultraviolet: single and double excitations of 5d, 6s and 6p electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 1719-1734.	1.5	6
99	Measurement of oscillator strengths of the principal series of calcium. Physical Review A, 1994, 49, 3419-3425.	2.5	6
100	Laser-induced dissociation and ionization of lithium vapour. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, L381-L387.	1.5	6
101	Three-step laser excitation of the $J=1, 2, 3$ autoionizing Rydberg levels of lead. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 1179-1189.	1.5	6
102	High resolution measurement and MQDT analysis of the $5d9s\ ^6s2\ ^nP$, $n f$ ($J=1$) autoionizing resonances of mercury. European Physical Journal D, 2008, 46, 437-442.	1.3	6
103	Oscillator strength measurements of the highly excited $4s4p\ ^3P_1$ \rightarrow $4snd\ ^3D_2$ transitions of zinc. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 402.	2.1	6
104	Photoexcitation and photoionization from the $4s4p\ ^3P_1$ \rightarrow $4snd\ ^3D_2$ transitions of zinc. Physical Review A, 2011, 84, .	2.5	6
105	The role of metal contacts in the stability of n-type organic field effect transistors. Applied Physics A: Materials Science and Processing, 2014, 117, 2235-2240.	2.3	6
106	Autoionisation resonances in the photoabsorption spectrum of C ₂ H ₅ I. Journal of Physics B: Atomic and Molecular Physics, 1986, 19, L343-L347.	1.6	5
107	High-resolution photoabsorption spectrum of copper in the 3d subshell excitation region. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 5381-5399.	1.5	5
108	Three-step laser excitation of the odd-parity $5s5d\ ^3D_1$ \rightarrow $5snf\ ^3F$ states of cadmium. European Physical Journal D, 2014, 68, 1.	1.3	5

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109	Laser-induced breakdown spectroscopic study of ammonium nitrate plasma. Plasma Physics Reports, 2013, 39, 1019-1025.	0.9	4
110	A high-resolution re-examination of the Yb I 5p-subshell absorption spectrum. Journal of Physics B: Atomic, Molecular and Optical Physics, 1993, 26, 2273-2288.	1.5	3
111	Two-step laser excitation of the highly excited even-parity states of atomic mercury. European Physical Journal D, 2009, 53, 147-151.	1.3	3
112	Amelioration in the Detection of Chlorine Using Electric Field Assisted LIBS. Plasma Chemistry and Plasma Processing, 2020, 40, 809-818.	2.4	3
113	Inner-shell and double excitation spectrum of caesium involving 5p and 6s subshells. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 3871-3889.	1.5	2
114	Three step excitation of the autoionizing Rydberg levels via levels of lead. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 3107-3116.	1.5	2
115	Laser-optogalvanic studies of the 4p5ns and autoionizing resonances in krypton. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 035004.	1.5	2
116	Laser induced breakdown spectroscopy of zinc, cadmium and mercury plasma parameters produced by the 1064 nm, 532 nm, and 355 nm OF Nd:YAG laser. , 2009, , .		2
117	High-resolution studies of BaD molecule in the ultraviolet region. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1991, 13, 1021-1029.	0.4	1
118	Spectral line shapes in a thermionic diode detector. Measurement Science and Technology, 1996, 7, 1038-1041.	2.6	1
119	Three-step excitation of the ,nd,ng autoionizing Rydberg levels via the 6p6f level of lead. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 4183-4191.	1.5	1
120	Three-step laser excitation of the 6p3/2ns, nd, ng autoionizing Rydberg levels via the 6p5f 1/2[5/2]2 level of lead. European Physical Journal D, 2005, 32, 271-276.	1.3	1
121	Diagnostic Study of an Fe-Ni Alloy Plasma Generated by the Fundamental (1064 nm) and Second (532 nm) Harmonics of an Nd: YAG Laser. Plasma Science and Technology, 2013, 15, 397-402.	1.5	1
122	Spectroscopic investigations of the laser induced thallium plasma. Laser Physics, 2019, 29, 016004.	1.2	1
123	Plasma diagnostic study of nickel alloy generated by fundamental and second harmonics of a ND: YAG laser. , 2012, , .		0
124	Spectroscopic Studies of Indium Plasma Produced by Fundamental (1,064 nm) and Second (532 nm) Harmonics of an Nd:YAG Laser. Journal of Russian Laser Research, 2018, 39, 37-45.	0.6	0
125	On the perturbation of the 6snd 1,3D2 series by the 5d7d 1D2 state of barium. Laser Physics, 2018, 28, 015702.	1.2	0