

Hitendra K Malik

List of Publications by Year in descending order

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130
papers

2,416
citations

172457

29
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289244

40
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132
all docs

132
docs citations

132
times ranked

1077
citing authors

#	ARTICLE	IF	CITATIONS
1	Bandgap tuning in highly c-axis oriented Zn _{1-x} Mg _x O thin films. Applied Physics Letters, 2013, 102, .	3.3	95
2	Terahertz radiation generation by beating of two spatial-Gaussian lasers in the presence of a static magnetic field. Physical Review E, 2012, 85, 016401.	2.1	70
3	Terahertz radiation generation by beating of two spatial-Gaussian lasers. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1191-1194.	2.1	62
4	Investigation of phase segregation in Zn _{1-x} Mg _x O systems. Current Applied Physics, 2012, 12, 1166-1172.	2.4	60
5	Investigations on terahertz radiation generated by two superposed femtosecond laser pulses. Journal of Applied Physics, 2010, 107, .	2.5	57
6	Strong terahertz radiation by beating of spatial-triangular lasers in a plasma. Applied Physics Letters, 2011, 99, .	3.3	55
7	Microwave and plasma interaction in a rectangular waveguide: Effect of ponderomotive force. Journal of Applied Physics, 2010, 108, .	2.5	53
8	Enhancement of terahertz emission in magnetized collisional plasma. Plasma Sources Science and Technology, 2015, 24, 045001.	3.1	53
9	Evaluation of mode fields in a magnetized plasma waveguide and electron acceleration. Optics Communications, 2005, 251, 346-360.	2.1	52
10	Terahertz generation by mixing of two super-Gaussian laser beams in collisional plasma. Physics of Plasmas, 2014, 21, .	1.9	47
11	Superhard behaviour, low residual stress, and unique structure in diamond-like carbon films by simple bilayer approach. Journal of Applied Physics, 2012, 112, .	2.5	46
12	Strong and collimated terahertz radiation by super-Gaussian lasers. Europhysics Letters, 2012, 100, 45001.	2.0	45
13	Possibility of room-temperature multiferroism in Mg-doped ZnO. Applied Physics A: Materials Science and Processing, 2014, 114, 453-457.	2.3	45
14	Electron inertia effect on small amplitude solitons in a weakly relativistic two-fluid plasma. Physics of Plasmas, 2005, 12, 052103.	1.9	44
15	Resistive instability in a Hall plasma discharge under ionization effect. Physics of Plasmas, 2013, 20, .	1.9	42
16	Tunable and collimated terahertz radiation generation by femtosecond laser pulses. Applied Physics Letters, 2011, 99, .	3.3	40
17	Tuning and Focusing of Terahertz Radiation by DC Magnetic Field in a Laser Beating Process. IEEE Journal of Quantum Electronics, 2013, 49, 232-237.	1.9	40
18	Density bunch formation by microwave in a plasma-filled cylindrical waveguide. Europhysics Letters, 2014, 106, 55002.	2.0	39

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19	Analytical calculations of wake field generated by microwave pulses in a plasma filled waveguide for electron acceleration. Journal of Applied Physics, 2008, 104, .	2.5	38
20	Studies of pure and nitrogen-incorporated hydrogenated amorphous carbon thin films and their possible application for amorphous silicon solar cells. Journal of Applied Physics, 2012, 111, .	2.5	36
21	Electron acceleration by laser produced wake field: Pulse shape effect. Optics Communications, 2007, 280, 417-423.	2.1	35
22	Soliton reflection in magnetized plasma: Effect of ion temperature and nonisothermal electrons. Physics of Plasmas, 2008, 15, .	1.9	35
23	Numerical studies on wakefield excited by Gaussian-like microwave pulse in a plasma filled waveguide. Optics Communications, 2009, 282, 423-426.	2.1	34
24	Conditions and growth rate of Rayleigh instability in a Hall thruster under the effect of ion temperature. Physical Review E, 2011, 83, 036406.	2.1	33
25	Investigation of phase segregation in yttrium doped zinc oxide. Ceramics International, 2015, 41, 6734-6739.	4.8	33
26	Terahertz radiation generation by lasers with remarkable efficiency in electron-positron plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2826-2829.	2.1	33
27	Strange hardness characteristic of hydrogenated diamond-like carbon thin film by plasma enhanced chemical vapor deposition process. Applied Physics Letters, 2013, 102, .	3.3	32
28	Soliton reflection in a negative ion containing plasma: Effect of magnetic field and ion temperature. Physics of Plasmas, 2006, 13, 082104.	1.9	30
29	Magnetic field contribution to soliton propagation and reflection in an inhomogeneous plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 365, 224-230.	2.1	30
30	Solitons in Inhomogeneous Magnetized Negative Ion Containing Plasma With Two Temperature Nonisothermal Electrons. IEEE Transactions on Plasma Science, 2008, 36, 462-468.	1.3	30
31	Growth of Low-Frequency Electrostatic and Electromagnetic Instabilities in a Hall Thruster. IEEE Transactions on Plasma Science, 2011, 39, 1910-1918.	1.3	30
32	Reflection of nonlinear solitary waves (mKdV solitons) at critical density of negative ions in a magnetized cold plasma. Plasma Physics and Controlled Fusion, 2007, 49, 1551-1563.	2.1	29
33	Application of obliquely interfering TE ₁₀ modes for electron energy gain. Optics Communications, 2007, 278, 387-394.	2.1	29
34	High frequency electromagnetic resistive instability in a Hall thruster under the effect of ionization. Physics of Plasmas, 2013, 20, .	1.9	29
35	DDA simulations of noble metal and alloy nanocubes for tunable optical properties in biological imaging and sensing. RSC Advances, 2013, 3, 15427.	3.6	28
36	The rise of carbon materials for field emission. Journal of Materials Chemistry C, 2021, 9, 2620-2659.	5.5	28

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37	$\text{BCl}_{3}/\text{Cl}_{2}$ -Based Inductively Coupled Plasma Etching of GaN/AlGa _N Using Photoresist Mask. IEEE Transactions on Plasma Science, 2012, 40, 2211-2220.	1.3	27
38	Compressive solitons in a moving e-p plasma under the effect of dust grains and an external magnetic field. Journal of Theoretical and Applied Physics, 2013, 7, 65.	1.4	27
39	Electron inertia contribution to soliton evolution in an inhomogeneous weakly relativistic two-fluid plasma. Physics of Plasmas, 2005, 12, 072302.	1.9	26
40	Soliton propagation in a moving electron-positron pair plasma having negatively charged dust grains. Physics of Plasmas, 2012, 19, 032107.	1.9	26
41	Multifocal terahertz radiation by intense lasers in rippled plasma. Iranian Physical Journal, 2017, 11, 103-108.	1.2	25
42	Density modification by two superposing TE ₁₀ modes in a plasma filled rectangular waveguide. Physics of Plasmas, 2013, 20, .	1.9	24
43	Generalized treatment of skew-cosh-Gaussian lasers for bifocal terahertz radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126304.	2.1	24
44	Effect of dust charging and trapped electrons on nonlinear solitary structures in an inhomogeneous magnetized plasma. Physics of Plasmas, 2012, 19, 012114.	1.9	23
45	Controlling room temperature ferromagnetism and band gap in ZnO nanostructured thin films by varying angle of implantation. RSC Advances, 2018, 8, 6278-6287.	3.6	23
46	An insight to origin of ferromagnetism in ZnO and N implanted ZnO thin films: Experimental and DFT approach. Journal of Alloys and Compounds, 2018, 768, 323-328.	5.5	21
47	Electron acceleration in a plasma filled rectangular waveguide under obliquely applied magnetic field. Journal of Plasma Physics, 2006, 72, 983.	2.1	20
48	Collision of ion acoustic solitary waves in a magnetized plasma: Effect of dust grains and trapped electrons. Physical Review E, 2015, 92, 063107.	2.1	20
49	Role of ionization and electron drift velocity profile to Rayleigh instability in a Hall thruster plasma. Journal of Applied Physics, 2012, 112, .	2.5	19
50	Microwave breakdown for the TE ₁₀ mode in a rectangular waveguide. Physics of Plasmas, 2013, 20, 082125.	1.9	17
51	Growth of Rayleigh instability in a Hall thruster channel having dust in exit region. AIP Advances, 2019, 9, .	1.3	16
52	Reflection of ion acoustic solitary waves in a dusty plasma with variable charge dust. Iranian Physical Journal, 2014, 8, 1.	1.2	15
53	Structural, transport and ferroelectric properties of Zn _{1-x} Mg _x O samples and their local electronic structure. Superlattices and Microstructures, 2015, 78, 183-189.	3.1	15
54	Terahertz radiation for medical application. Europhysics Letters, 2018, 123, 65003.	2.0	15

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55	Shape-Dependent Terahertz Radiation Generation Through Nanoparticles. <i>Plasmonics</i> , 2020, 15, 177-187.	3.4	15
56	Energy gain by an electron in the fundamental mode of a rectangular waveguide by microwave radiation. <i>Journal of Plasma Physics</i> , 2002, 68, 211-219.	2.1	14
57	Nonlinear Solitary Structures in an Inhomogeneous Magnetized Plasma having Trapped Electrons and Dust Particles with Different Polarity. <i>Journal of the Physical Society of Japan</i> , 2011, 80, 044502.	1.6	14
58	Small amplitude dust acoustic solitary wave in magnetized two ion temperature plasma. <i>Journal of Taibah University for Science</i> , 2020, 14, 417-422.	2.5	14
59	Evolution of solitons and their reflection and transmission in a plasma having negatively charged dust grains. <i>Iranian Physical Journal</i> , 2014, 8, 1.	1.2	13
60	Effect of dust on tilted electrostatic resistive instability in a Hall thruster. <i>Journal of Theoretical and Applied Physics</i> , 2018, 12, 39-43.	1.4	13
61	Dark hollow beams originating terahertz radiation in corrugated plasma under magnetic field. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	13
62	Sheath formation criterion in collisional electronegative warm plasma. <i>Vacuum</i> , 2020, 177, 109354.	3.5	13
63	Oscillating two stream instability of a plasma wave in a negative ion containing plasma with hot and cold positive ions. <i>Laser and Particle Beams</i> , 2007, 25, 397-406.	1.0	12
64	Modified Korteweg-deVries soliton evolution at critical density of negative ions in an inhomogeneous magnetized cold plasma. <i>Physics of Plasmas</i> , 2007, 14, 062113.	1.9	12
65	Solitary wave evolution in a magnetized inhomogeneous plasma under the effect of ionization. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	12
66	Influence of negative bias voltage on structural and mechanical properties of nanocrystalline TiN _x thin films treated in hot cathode arc discharge plasma system. <i>Ceramics International</i> , 2016, 42, 18019-18024.	4.8	12
67	A mathematical model to describe the fungal assisted algal flocculation process. <i>Bioresource Technology</i> , 2017, 244, 975-981.	9.6	12
68	Influence of ionization on sheath structure in electropositive warm plasma carrying two-temperature electrons with non-extensive distribution. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	12
69	Sheath characteristics in plasma carrying finite mass negative ions and ionization at low frequency. <i>Chinese Journal of Physics</i> , 2020, 66, 560-572.	3.9	12
70	Modelling of electronegative collisional warm plasma for plasma-surface interaction process. <i>Plasma Science and Technology</i> , 2021, 23, 045402.	1.5	12
71	Soliton reflection in a plasma with trapped electrons: The effect of dust concentration. <i>Physica D: Nonlinear Phenomena</i> , 2011, 240, 310-316.	2.8	11
72	Modified Korteweg-de Vries soliton reflection in a magnetized plasma with dust grains and trapped electrons. <i>Physics of Plasmas</i> , 2013, 20, 032112.	1.9	11

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73	Role of magnetic field on self focusing of super-Gaussian laser beam under relativistic effect. Optik, 2020, 207, 164439.	2.9	11
74	On reflection of solitary waves in a magnetized multicomponent plasma with nonisothermal electrons. Physics of Plasmas, 2009, 16, .	1.9	10
75	Structurally Driven Enhancement of Resonant Tunneling and Nanomechanical Properties in Diamond-like Carbon Superlattices. ACS Applied Materials & Interfaces, 2015, 7, 20726-20735.	8.0	10
76	Resonant third harmonic generation of super-Gaussian laser beam in a rippled density plasma. Journal of Theoretical and Applied Physics, 2018, 12, 265-270.	1.4	10
77	THz radiation generation in axially magnetized collisional pair plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1772-1777.	2.1	10
78	Behaviour of sheath in electronegative warm plasma. Journal of Theoretical and Applied Physics, 2020, 14, 121-128.	1.4	10
79	Controlling polarization of THz radiation in pair plasma. Plasma Sources Science and Technology, 2019, 28, 115018.	3.1	9
80	Sheath Structure in Electronegative Plasma Having Cold Ions: An Impact of Negative Ionsâ€™ Mass. IEEE Transactions on Plasma Science, 2020, 48, 2408-2417.	1.3	9
81	Hat-Top Beams for Generating Tunable THz Radiations Using a Medium of Conducting Nanocylinders. Electronics (Switzerland), 2021, 10, 3134.	3.1	9
82	Tuning of mechanical and structural properties of 20ÂˆMC 5 steel using N ion implantation and subsequent annealing. Journal of Alloys and Compounds, 2017, 710, 253-259.	5.5	8
83	On validity of paraxial theory for super-Gaussian laser beams propagating in a plasma. Iranian Physical Journal, 2017, 11, 165-170.	1.2	8
84	Control of peaks of terahertz radiation and tuning of its frequency and intensity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2715-2719.	2.1	8
85	Conditions for reflection and transmission of an ion acoustic soliton in a dusty plasma with variable charge dust. Physics of Plasmas, 2014, 21, 072112.	1.9	7
86	Unperturbed state and solitary structures in an electron-positron plasma having dust impurity and density inhomogeneity. Journal of Plasma Physics, 2014, 80, 629-641.	2.1	7
87	Modifications in room temperature ferromagnetism by dense electronic excitations in Zn _{0.9} Mg _{0.1} O thin films. Journal of Alloys and Compounds, 2017, 710, 831-835.	5.5	7
88	Terahertz radiation generation in magnetized plasma under relativistic effect. Physics of Plasmas, 2017, 24, .	1.9	7
89	Theoretical study of plasma-material interaction. AIP Conference Proceedings, 2019, , .	0.4	7
90	Electrical transport and gas sensing characteristics of dielectrophoretically aligned MBE grown catalyst free InAs nanowires. Nanotechnology, 2019, 30, 105706.	2.6	7

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91	THz Radiation Generation Through Graphite Nanoparticles Having Two Different Shapes and Orientations of Basal Planes. IEEE Transactions on Plasma Science, 2022, 50, 1087-1096.	1.3	7
92	Reflection of an Ion-Acoustic Soliton in a Finite Ion Temperature Magnetized Plasma. IEEE Transactions on Plasma Science, 2007, 35, 1046-1055.	1.3	6
93	Oblique Reflection of Solitons in an Inhomogeneous Plasma: Effect of Trapped Electrons. IEEE Transactions on Plasma Science, 2010, 38, 2802-2811.	1.3	6
94	Low and high frequency instabilities in an explosion-generated-plasma and possibility of wave triplet. Iranian Physical Journal, 2015, 9, 75-80.	1.2	6
95	Discussion on Rayleigh equation obtained for a Hall thruster plasma with dust. Journal of Theoretical and Applied Physics, 2018, 12, 227-233.	1.4	6
96	Relativistic self-focusing of Laguerre-Gaussian beam in an underdense plasma. AIP Conference Proceedings, 2019, , .	0.4	6
97	Comparative study of dust acoustic solitons in two-temperature ion homogeneous and inhomogeneous plasmas. Journal of Theoretical and Applied Physics, 2020, 14, 11-20.	1.4	6
98	The effect of laser pulse parameters and initial phase on the acceleration of electrons in a vacuum. Physica Scripta, 2008, 77, 045401.	2.5	5
99	Influence of ionization on reflection of solitary waves in a magnetized plasma. Physics of Plasmas, 2013, 20, .	1.9	5
100	Self-defocusing of super-Gaussian laser beam in tunnel ionized plasmas. Optik, 2020, 222, 165357.	2.9	5
101	Influence of bias voltage on structural and optical properties of TiNx thin films. AIP Conference Proceedings, 2015, , .	0.4	4
102	High-frequency instabilities in an explosion-generated relativistic plasma. Iranian Physical Journal, 2015, 9, 105-110.	1.2	4
103	Strong Terahertz radiation generation via wakefield in collisional plasma. Journal of Taibah University for Science, 2020, 14, 1279-1287.	2.5	4
104	Generation and regulation of electron vortices in an underdense plasma by Laguerre-Gaussian laser pulses. Results in Physics, 2020, 18, 103216.	4.1	4
105	Soliton reflection in a magnetized inhomogeneous warm plasma: effect of ionization. Iranian Physical Journal, 2014, 8, 1.	1.2	3
106	Memory effect in silicon nitride deposition using ICPCVD technique. Journal of Theoretical and Applied Physics, 2019, 13, 299-304.	1.4	3
107	Role of pulse shaping in control of focus and intensity of terahertz radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2891-2896.	2.1	3
108	Solution Processable High Performance Multiwall Carbon Nanotube-Si Heterojunctions. Advanced Electronic Materials, 2020, 6, 2000617.	5.1	3

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109	Terahertz emission during laser-plasma interaction: effect of electron temperature and collisions. Journal of Theoretical and Applied Physics, 2020, 14, 359-365.	1.4	3
110	Terahertz emission by multiple resonances under external periodic electrostatic field. Physical Review E, 2020, 101, 043207.	2.1	3
111	Study of Cl ₂ /BCl ₃ inductively coupled plasma for selective etching of GaAs. , 2009, , .		2
112	Investigation of micro-structure and micro-hardness properties of 304L stainless steel treated in a hot cathode arc discharge plasma. AIP Conference Proceedings, 2015, , .	0.4	2
113	Anomalous electron transport in metal/carbon multijunction devices by engineering of the carbon thickness and selecting metal layer. Journal of Applied Physics, 2017, 121, .	2.5	2
114	Employing constant photocurrent method for the study of defects in silicon thin films. Journal of Theoretical and Applied Physics, 2019, 13, 107-113.	1.4	2
115	Influence of Molecular Beam Epitaxy (MBE) Parameters on Catalyst-Free Growth of InAs Nanowires on Silicon (111) Substrate. Journal of Electronic Materials, 2019, 48, 2174-2182.	2.2	2
116	Effect of magnetic field on electromagnetic soliton evolution by different pulses. Journal of Theoretical and Applied Physics, 2019, 13, 31-37.	1.4	2
117	Trifocal THz Radiation and Its Tuning by Dark Hollow Laser Beams in Collisional Plasma. IEEE Transactions on Plasma Science, 2021, 49, 934-941.	1.3	2
118	Role of Sandwich Cu Layer in and Effect of Self-Bias on Nanomechanical Properties of Copper/Diamond-Like Carbon Bilayer Films. ISRN Nanotechnology, 2011, 2011, 1-7.	1.3	2
119	Suppression of Raman Scattering in Modulated Plasma With the Oblique Orientation of Density Ripples. IEEE Transactions on Plasma Science, 2022, 50, 2-8.	1.3	2
120	Collimated GeV electrons from the ionization of a gas by a laser pulse in an intense magnetic field. Applied Physics Letters, 2008, 93, .	3.3	1
121	Slow wave solitons in a multicomponent magnetized inhomogeneous plasma with nonisothermal electrons. , 2009, , .		1
122	Study of electromagnetic solitons excited by different profile pulses. Journal of Theoretical and Applied Physics, 2018, 12, 65-70.	1.4	1
123	Ponderomotive force driven nonlinear current in pair plasma. AIP Conference Proceedings, 2019, , .	0.4	1
124	Diagnostic of laser wakefield acceleration with ultra “ Short laser pulse by using SMILEI PIC code. Materials Today: Proceedings, 2022, 62, 3203-3207.	1.8	1
125	Investigations on characteristics of TE ₁₁ mode encountering plasma in a circular waveguide. , 2009, , .		0
126	Solitarywave evolution in magnetized plasma under ionization effect. , 2009, , .		0

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127	Ion Acoustic Wave Streamers Excited by a Resonantly Signal Biased Mesh Antenna in an Inhomogeneous Plasma. IEEE Transactions on Plasma Science, 2011, 39, 1927-1934.	1.3	0
128	Effect of laser shape and plasma density on THz Generation. , 2013, , .		0
129	Current generation by Bessel beam in laser plasma interaction. AIP Conference Proceedings, 2019, , .	0.4	0
130	Low frequency dust acoustic waves and instabilities in a multi-component plasma. AIP Conference Proceedings, 2020, , .	0.4	0