R S Rawat

List of Publications by Year in descending order

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82 papers	1,891 citations	230014 27 h-index	325983 40 g-index
82 all docs	82 docs citations	82 times ranked	702 citing authors

#	Article	IF	Citations
1	Magnetization reversal, field-induced transitions and Hâ€“T phase diagram of Y_{1â^'x}Ce_xCrO₃. Journal of Physics Condensed Matter, 2022, 34, 065801.	0.7	3
2	Plasma processed tungsten for fusion reactor first-wall material. Journal of Materials Science, 2021, 56, 10494-10509.	1.7	7
3	Experimental Study of the Effect of External Inductance on Pinch Characteristics and Neon Soft X-Ray Yield in Filippov-Type Plasma Focus Device. Plasma Physics Reports, 2020, 46, 696-702.	0.3	1
4	Dense-plasma-driven ultrafast formation of FePt organization on silicon substrate. Bulletin of Materials Science, 2017, 40, 233-238.	0.8	5
5	Sahand Plasma Focus Emitted More Than 35ÂJ in Yield Neon Soft X-ray. Journal of Fusion Energy, 2017, 36, 240-245.	0.5	3
6	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.	0.8	11
7	L-shell spectroscopic diagnostics of radiation from krypton HED plasma sources. Review of Scientific Instruments, 2016, 87, 11E315.	0.6	3
8	Structural and mechanical properties of Alâ€“Câ€“N films deposited at room temperature by plasma focus device. Chinese Physics B, 2016, 25, 075201.	0.7	5
9	Ferromagnetic signature in vanadium doped ZnO thin films grown by pulsed laser deposition. Journal of Materials Research, 2016, 31, 3223-3229.	1.2	9
10	Influence of Krypton Seeding on DD Fusion Neutron Production: Evaluation Methodology for Plasma Focus Optimization. Journal of Fusion Energy, 2016, 35, 370-377.	0.5	8
11	Structural and Mechanical Properties of Zirconia Film Deposited by Plasma Focus Device. Journal of Fusion Energy, 2015, 34, 930-940.	0.5	8
12	Dense Plasma Focus - From Alternative Fusion Source to Versatile High Energy Density Plasma Source for Plasma Nanotechnology. Journal of Physics: Conference Series, 2015, 591, 012021.	0.3	42
13	Role of Nitrogen Pressure on the Structural and Mechanical Properties of ZrON Composite Films Deposited by Plasma Focus Device. Journal of Fusion Energy, 2015, 34, 1284-1296.	0.5	6
14	External circuit integration with electromagnetic particle in cell modeling of plasma focus devices. Physics of Plasmas, 2015, 22, 033514.	0.7	3
15	Laser Shadowgraphic Study of the Influence of Krypton-Seeding, Switch Synchronization and Electrode Geometry on Plasma Dynamic in Plasma Focus Device. Journal of Fusion Energy, 2015, 34, 794-801.	0.5	5
16	Comparison of Measured Neutron Yield Versus Pressure Curves for FMPF-3, NX2 and NX3 Plasma Focus Machines Against Computed Results Using the Lee Model Code. Journal of Fusion Energy, 2015, 34, 474-479.	0.5	21
17	Current sheath formation dynamics and structure for different insulator lengths of plasma focus device. Physics of Plasmas, 2014, 21, 113508.	0.7	6
18	Mechanical properties of Al/a-C nanocomposite thin films synthesized using a plasma focus device. Chinese Physics B, 2014, 23, 025204.	0.7	6

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19	Electromagnetic particle in cell modeling of the plasma focus: Current sheath formation and lift off. Physics of Plasmas, 2014, 21, 023509.	0.7	7
20	Low-energy repetitive plasma focus based neon soft x-ray lithography source. Proceedings of SPIE, 2014, , .	0.8	0
21	A 160 kJ dual plasma focus (DuPF) for fusion-relevant materials testing and nano-materials fabrication. International Journal of Modern Physics Conference Series, 2014, 32, 1460322.	0.7	6
22	Influence of Different CH4/N2 Ratios on Structural and Mechanical Properties of a-CNx:H Film Synthesized Using Plasma Focus. Journal of Fusion Energy, 2014, 33, 640-647.	0.5	6
23	Optimization of neon soft X-ray emission from 200 J plasma focus device for application in soft X-ray lithography. International Journal of Modern Physics Conference Series, 2014, 32, 1460323.	0.7	6
24	High Performance High Repetition Rate Miniature Plasma Focus Device: Record Time Averaged Neutron Yield at 200ÂJ with Enhanced Reproducibility. Journal of Fusion Energy, 2013, 32, 2-10.	0.5	28
25	Magnetic Reynolds Number and Neon Current Sheet Structure in the Axial Phase of a Plasma Focus. Journal of Fusion Energy, 2013, 32, 50-55.	0.5	13
26	High-Energy-Density Pinch Plasma: A Unique Nonconventional Tool for Plasma Nanotechnology. IEEE Transactions on Plasma Science, 2013, 41, 701-715.	0.6	50
27	Role of Ion Beam Irradiation and Annealing Effect on the Deposition of AlON Nanolayers by Using Plasma Focus Device. Plasma Science and Technology, 2013, 15, 1127-1135.	0.7	5
28	The effect of helium impurity addition on current sheath speed in argon-operated plasma focus using a tridimensional magnetic probe. Journal of Plasma Physics, 2013, 79, 867-871.	0.7	0
29	FTIR SPECTROSCOPIC STUDIES ON CROSS LINKING OF SU-8 PHOTORESIST. Cosmos, 2013, 09, 37-46.	0.4	5
30	Post-annealing effect on the structural and mechanical properties of multiphase zirconia films deposited by a plasma focus device. Chinese Physics B, 2013, 22, 127306.	0.7	12
31	High Energy Density Pulsed Plasmas in Plasma Focus: Novel Plasma Processing Tool for Nanophase Hard Magnetic Material Synthesis. Nanoscience and Nanotechnology Letters, 2013, 4, 251-274.	0.4	39
32	Entrapping of Inclusions Within Carbon Nanotubes During Catalytic Decomposition of C₂H₄ on a â€œThickâ€•Nickel Film. Nanoscience and Nanotechnology Letters, 2012, 4, 1194-1202.	0.4	4
33	Coded aperture imaging of fusion source in a plasma focus operated with pure D2 and a D2-Kr gas admixture. Applied Physics Letters, 2012, 101, .	1.5	12
34	Effects of laser energy fluence on the onset and growth of the Rayleighâ€“Taylor instabilities and its influence on the topography of the Fe thin film grown in pulsed laser deposition facility. Physics of Plasmas, 2012, 19, .	0.7	9
35	Increasing of Hardness of Titanium Using Energetic Nitrogen Ions from Sahand as a Filippov Type Plasma Focus Facility. Journal of Fusion Energy, 2012, 31, 65-72.	0.5	22
36	Measurement and Processing of Fast Pulsed Discharge Current in Plasma Focus Machines. Journal of Fusion Energy, 2012, 31, 198-204.	0.5	35

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37	Correlation of Measured Soft X-Ray Pulses With Modeled Dynamics of the Plasma Focus. IEEE Transactions on Plasma Science, 2011, 39, 3196-3202.	0.6	26
38	Dispersion of laser droplets using H+ ions and annealing effect on pulsed laser deposited nickel ferrite thin films. Applied Physics A: Materials Science and Processing, 2011, 105, 233-238.	1.1	3
39	Oriented growth of CoPt nanoparticles by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2010, 101, 609-613.	1.1	8
40	Material ablation and plasma plume expansion study from Fe andÂgraphite targets in Ar gas atmosphere. Applied Physics A: Materials Science and Processing, 2010, 101, 695-699.	1.1	11
41	Plasma dynamics and determination of ablation parameters using the near-target magnified imaging during pulsed laser ablation. Applied Physics A: Materials Science and Processing, 2010, 101, 701-705.	1.1	5
42	Radiation Emission Correlated with the Evolution of Current Sheath from a Deuterium Plasma Focus. Journal of Fusion Energy, 2010, 29, 295-304.	0.5	6
43	Miniature Plasma Focus Device as a Compact Hard X-Ray Source for Fast Radiography Applications. IEEE Transactions on Plasma Science, 2010, 38, 652-657.	0.6	22
44	Absolute measurements of fast neutrons using yttrium. Review of Scientific Instruments, 2010, 81, 083506.	0.6	5
45	Pulsed ion beam-assisted carburizing of titanium in methane discharge. Chinese Physics B, 2010, 19, 012801-10.	0.7	18
46	On the plume splitting of pulsed laser ablated Fe and Al plasmas. Physics of Plasmas, 2010, 17, .	0.7	38
47	Investigation of plume expansion dynamics and estimation of ablation parameters of laser ablated Fe plasma. Journal Physics D: Applied Physics, 2009, 42, 135504.	1.3	21
48	Realization of enhancement in time averaged neutron yield by using repetitive miniature plasma focus device as pulsed neutron source. Journal Physics D: Applied Physics, 2009, 42, 235203.	1.3	17
49	The effect of anode shape on neon soft x-ray emissions and current sheath configuration in plasma focus device. Journal Physics D: Applied Physics, 2009, 42, 045203.	1.3	40
50	Numerical experiments on plasma focus neon soft x-ray scaling. Plasma Physics and Controlled Fusion, 2009, 51, 105013.	0.9	53
51	Current Sheath Dynamics and its Evolution Studies in Sahand Filippov Type Plasma Focus. Journal of Fusion Energy, 2009, 28, 371-376.	0.5	17
52	Nanostructuring of FePt thin films by plasma focus device: pulsed ion irradiation dependent phase transition and magnetic properties. Applied Physics A: Materials Science and Processing, 2009, 96, 1027-1033.	1.1	19
53	Experimental study of neutron emission characteristics in a compact sub-kilojoule range miniature plasma focus device. Plasma Physics and Controlled Fusion, 2009, 51, 075008.	0.9	33
54	Nanostructured magnetic CoPt thin films synthesis using dense plasma focus device operating at sub-kilojoule range. Journal Physics D: Applied Physics, 2009, 42, 175001.	1.3	15

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55	Soft x-ray yield from NX2 plasma focus. Journal of Applied Physics, 2009, 106, 023309.	1.1	57
56	Compact sub-kilojoule range fast miniature plasma focus as portable neutron source. Plasma Sources Science and Technology, 2008, 17, 045020.	1.3	54
57	Order of magnitude enhancement in x-ray yield at low pressure deuterium-krypton admixture operation in miniature plasma focus device. Applied Physics Letters, 2008, 92, .	1.5	21
58	SYNTHESIS OF ZIRCONIUM OXYNITRIDE (ZrON) NANOCOMPOSITE FILMS ON ZIRCONIUM SUBSTRATE BY DENSE PLASMA FOCUS DEVICE. International Journal of Modern Physics B, 2008, 22, 3941-3955.	1.0	22
59	Numerical experiments on plasma focus pinch current limitation. Plasma Physics and Controlled Fusion, 2008, 50, 065012.	0.9	60
60	FePtâ€‰:â€‰Al2O3nanocomposite thin films synthesized by magnetic trapping assisted pulsed laser deposition with reduced intergranular exchange coupling. Journal Physics D: Applied Physics, 2008, 41, 095001.	1.3	13
61	Order of magnitude enhancement in neutron emission with deuterium-krypton admixture operation in miniature plasma focus device. Applied Physics Letters, 2008, 93, 101501.	1.5	37
62	FePt nanoparticle formation with lower phase transition temperature by single shot plasma focus ion irradiation. Journal Physics D: Applied Physics, 2008, 41, 135213.	1.3	31
63	Computing plasma focus pinch current from total current measurement. Applied Physics Letters, 2008, 92, 111501.	1.5	65
64	Optimization of a plasma focus device as an electron beam source for thin film deposition. Plasma Sources Science and Technology, 2007, 16, 250-256.	1.3	37
65	Backward plume deposition as a novel technique for high deposition rate Fe nanoclusters synthesis. Nanotechnology, 2007, 18, 115617.	1.3	15
66	Synthesis of Fe3O4nanostructures by backward plume deposition and influence of ambient gas pressure on their morphology. Journal Physics D: Applied Physics, 2007, 40, 2548-2554.	1.3	14
67	Magnetic trapping induced low temperature phase transition from fcc to fct in pulsed laser deposition of FePt:Al2O3 nanocomposite thin films. Applied Physics Letters, 2007, 91, 063120.	1.5	15
68	Neon soft x-ray emission studies from the UNU-ICTP plasma focus operated with longer than optimal anode length. Plasma Sources Science and Technology, 2007, 16, 785-790.	1.3	22
69	An improved radiative plasma focus model calibrated for neon-filled NX2 using a tapered anode. Plasma Sources Science and Technology, 2007, 16, 116-123.	1.3	40
70	Shadowgraphic and euv emission studies of low energy miniature plasma focus device. , 2007, , .		0
71	Pinching evidences in a miniature plasma focus with fast pseudospark switch. Plasma Sources Science and Technology, 2006, 15, 614-619.	1.3	36
72	A Magnetic Electron Analyzer for Plasma Focus Electron Energy Distribution Studies. Journal of Fusion Energy, 2006, 25, 57-66.	0.5	34

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73	Characteristics of FeCo nano-particles synthesized using plasma focus. Journal Physics D: Applied Physics, 2006, 39, 2212-2219.	1.3	35
74	Novel fast-neutron activation counter for high repetition rate measurements. Review of Scientific Instruments, 2006, 77, 10E713.	0.6	13
75	Current sheath curvature correlation with the neon soft x-ray emission from plasma focus device. Plasma Sources Science and Technology, 2005, 14, 368-374.	1.3	46
76	Spectral study of the electron beam emitted from a 3â€‰kJ plasma focus. Plasma Sources Science and Technology, 2005, 14, 549-560.	1.3	60
77	Optimization of the high pressure operation regime for enhanced neutron yield in a plasma focus device. Plasma Sources Science and Technology, 2005, 14, 12-18.	1.3	81
78	Soft X-ray Imaging using a Neon Filled Plasma Focus X-ray Source. Journal of Fusion Energy, 2004, 23, 49-53.	0.5	44
79	Effect of insulator sleeve length on soft x-ray emission from a neon-filled plasma focus device. Plasma Sources Science and Technology, 2004, 13, 569-575.	1.3	69
80	Effect of energetic ion irradiation on CdI2 films. Journal of Applied Physics, 2004, 95, 7725-7730.	1.1	84
81	Study of a Chemically Amplified Resist for X-Ray Lithography by Fourier Transform Infrared Spectroscopy. Applied Spectroscopy, 2004, 58, 1288-1294.	1.2	33
82	Crystallization of an amorphous lead zirconate titanate thin film with a dense-plasma-focus device. Physical Review B, 1993, 47, 4858-4862.	1.1	85