Sunil Auluck

List of Publications by Year
in descending order

22	193	1307594 7	1125743 13
papers	citations	h-index	g-index

22	22	22	83
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Filamentary structures in dense plasma focus: Current filaments or vortex filaments?. Physics of Plasmas, 2014, 21, .	1.9	32
2	Update on the Scientific Status of the Plasma Focus. Plasma, 2021, 4, 450-669.	1.8	29
3	Re-appraisal and extension of the Gratton-Vargas two-dimensional analytical snowplow model of plasma focus evolution in the context of contemporary research. Physics of Plasmas, 2013, 20, .	1.9	20
4	Axial magnetic field and toroidally streaming fast ions in the dense plasma focus are natural consequences of conservation laws in the curved axisymmetric geometry of the current sheath. Physics of Plasmas, 2014, 21, .	1.9	12
5	Bounds imposed on the sheath velocity of a dense plasma focus by conservation laws and ionization stability condition. Physics of Plasmas, 2014, 21, 090703.	1.9	12
6	Evaluation of Turner relaxed state as a model of long-lived ion-trapping structures in plasma focus and Z-pinches. Physics of Plasmas, 2011, 18, 032508.	1.9	9
7	Acceleration and trapping of fast ions in self-organized magneto-plasma structures in the dense plasma focus. Physics of Plasmas, 2020, 27, .	1.9	9
8	Role of electron-inertia-linked current source terms in the physics of cylindrically symmetric imploding snowplow shocks. Physics of Plasmas, 2002, 9, 4488-4494.	1.9	7
9	Manifestation of Constrained Dynamics in a Low-Pressure Spark. IEEE Transactions on Plasma Science, 2013, 41, 437-446.	1.3	7
10	Dense Plasma Focus: A question in search of answers, a technology in search of applications. International Journal of Modern Physics Conference Series, 2014, 32, 1460315.	0.7	7
11	Re-appraisal and extension of the Gratton-Vargas two-dimensional analytical snowplow model of plasma focus. II. Looking at the singularity. Physics of Plasmas, 2015, 22, .	1.9	7
12	Description of plasma focus current sheath as the Turner relaxed state of a Hall magnetofluid. Physics of Plasmas, 2009, 16, 122504.	1.9	6
13	Re-appraisal and extension of the Gratton-Vargas two-dimensional analytical snowplow model of plasma focus. III. Scaling theory for high pressure operation and its implications. Physics of Plasmas, 2016, 23, .	1.9	6
14	On the representation of dense plasma focus as a circuit element. Physics of Plasmas, 2021, 28, .	1.9	6
15	New terms in MHD equations and their implications for the inertial confinement fusion concept. Journal of Plasma Physics, 1986, 36, 211-234.	2.1	5
16	Global parameter optimization of a Mather-type plasma focus in the framework of the Grattonâ€“Vargas two-dimensional snowplow model. Plasma Sources Science and Technology, 2014, 23, 065015.	3.1	5
17	Spontaneous generation of magnetic field in an imploding plasma. Journal of Plasma Physics, 1984, 32, 349-357.	2.1	3
18	A mechanism for Taylor relaxation in Z-pinches. Part 1. Dynamo mechanism. Journal of Plasma Physics, 1986, 35, 295-310.	2.1	3

#	Article	IF	Citations
19	Design Parameter Space for a High Pressure Optimized Dense Plasma Focus Operating with Deuterium. Journal of Fusion Energy, 2017, 36, 218-229.	1.2	3
20	On filamentation in the dense plasma focus. Physics of Plasmas, 2022, 29, 030703.	1.9	3
21	Relaxation of magnetic field in a plasma via the tearing mode. Journal of Plasma Physics, 1986, 35, 311-317.	2.1	1
22	Axial magnetic field and toroidally streaming fast ions in the dense plasma focus are natural consequences of conservation laws in the curved axisymmetric geometry of the current sheath. II. Towards a first principles theory. Physics of Plasmas, 2017, 24, 112502.	1.9	1