

Samuel A Cohen

List of Publications by Year in descending order

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54
papers

1,104
citations

430874

18
h-index

414414

32
g-index

58
all docs

58
docs citations

58
times ranked

468
citing authors

#	ARTICLE	IF	CITATIONS
1	System for rapid injection of metal atoms into plasmas. Review of Scientific Instruments, 1975, 46, 1149-1154.	1.3	188
2	Ion acceleration in plasmas emerging from a helicon-heated magnetic-mirror device. Physics of Plasmas, 2003, 10, 2593-2598.	1.9	147
3	Detection of surface glow related to spacecraft glow phenomena. Geophysical Research Letters, 1986, 13, 377-380.	4.0	52
4	Formation of Collisionless High- β Plasmas by Odd-Parity Rotating Magnetic Fields. Physical Review Letters, 2007, 98, 145002.	7.8	51
5	Correlations of heat and momentum transport in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1300-1305.	1.7	47
6	Glow discharge conditioning of the PDX vacuum vessel. Journal of Vacuum Science and Technology, 1980, 17, 286-290.	1.9	45
7	Vacuum and wall problems in precursor reactor tokamaks. Journal of Vacuum Science and Technology, 1976, 13, 449-462.	1.9	39
8	High- β operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35
9	A source of hyperthermal neutrals for materials processing. Applied Physics Letters, 1997, 71, 980-982.	3.3	35
10	Low-energy neutral atom spectrometer. Review of Scientific Instruments, 1982, 53, 1696-1708.	1.3	32
11	Hollow cathode magnetron. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 77-82.	2.1	31
12	Ion Heating in the Field-Reversed Configuration by Rotating Magnetic Fields near the Ion-Cyclotron Resonance. Physical Review Letters, 2000, 85, 5114-5117.	7.8	31
13	Ion and electron acceleration in the field-reversed configuration with an odd-parity rotating magnetic field. Physics of Plasmas, 2002, 9, 2093-2102.	1.9	30
14	On-axis parallel ion speeds near mechanical and magnetic apertures in a helicon plasma device. Physics of Plasmas, 2005, 12, 103509.	1.9	30
15	Observations of changes in residual gas and surface composition with discharge cleaning in PLT. Journal of Vacuum Science and Technology, 1979, 16, 752-757.	1.9	21
16	PPPL Lorentz orbit code. Review of Scientific Instruments, 1990, 61, 3262-3264.	1.3	20
17	Geometrical aspects of a hollow-cathode planar magnetron. Physics of Plasmas, 1999, 6, 1655-1666.	1.9	20
18	A direct fusion drive for rocket propulsion. Acta Astronautica, 2014, 105, 145-155.	3.2	20

#	ARTICLE	IF	CITATIONS
19	The effects of ICRF heating on plasma edge conditions in PLT. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 1211-1217.	2.1	19
20	Regular and stochastic orbits of ions in a highly prolate field-reversed configuration. Physics of Plasmas, 2004, 11, 947-957.	1.9	19
21	AES study of the adsorption of O ₂ , CO, CO ₂ , and H ₂ O on indium. Journal of Vacuum Science and Technology, 1979, 16, 558-561.	1.9	17
22	An instrument for measuring the momentum flux from atomic and charged particle jets. Review of Scientific Instruments, 1990, 61, 3586-3591.	1.3	17
23	TFTR prototype electrostatic calorimeter probe head. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 845-848.	2.1	16
24	Formation of Field-Reversed-Configuration Plasma with Punctuated-Betatron-Orbit Electrons. Physical Review Letters, 2010, 105, 015002.	7.8	16
25	Total scattering cross sections and interatomic potentials for neutral hydrogen and helium on some noble gases. Journal of Chemical Physics, 1985, 83, 5527-5530.	3.0	8
26	Particle-in-cell modeling of magnetized argon plasma flow through small mechanical apertures. Physics of Plasmas, 2009, 16, 053501.	1.9	8
27	UHV compatible chopper system. Journal of Vacuum Science and Technology, 1980, 17, 303-305.	1.9	7
28	Surface modification of the PLT lower hybrid waveguides to improve operations. Journal of Vacuum Science and Technology, 1982, 20, 1309-1312.	1.9	7
29	Passive Superconducting Flux Conservers for Rotating-Magnetic-Field-Driven Field-Reversed Configurations. Fusion Science and Technology, 2012, 61, 86-103.	1.1	7
30	A New Vision for Fusion Energy Research: Fusion Rocket Engines for Planetary Defense. Journal of Fusion Energy, 2016, 35, 123-133.	1.2	7
31	Using Poisson-regularized inversion of Bremsstrahlung emission to extract full electron energy distribution functions from x-ray pulse-height detector data. AIP Advances, 2018, 8, .	1.3	7
32	Summary Abstract: In situ surface analysis station for the PDX tokamak. Journal of Vacuum Science and Technology, 1980, 17, 301-302.	1.9	6
33	Effects of Particle Transport on Helium Ash Accumulation and Sustained Ignition in the International Thermonuclear Experimental Reactor. Fusion Science and Technology, 1991, 20, 48-57.	0.6	6
34	Particle-in-cell studies of fast-ion slowing-down rates in cool tenuous magnetized plasma. Physics of Plasmas, 2018, 25, .	1.9	6
35	Co adsorption on Al-Zr at room temperature. Journal of Vacuum Science and Technology, 1981, 18, 1098-1101.	1.9	5
36	Demonstration of fast-electron populations in a low-pressure, low-power, magnetized RF plasma source. Physics of Plasmas, 2018, 25, 030702.	1.9	5

#	ARTICLE	IF	CITATIONS
37	Nuclear and Future Flight Propulsion - Modeling the Thrust of the Direct Fusion Drive. , 2018, , .		5
38	Molecular hydrogen formation on interstellar dust grains. Nature, 1976, 261, 215-216.	27.8	4
39	Ion Beam Analysis of Surface Modifications in Tokamaks. IEEE Transactions on Nuclear Science, 1979, 26, 1277-1280.	2.0	4
40	Spontaneous multi-keV electron generation in a low-RF-power axisymmetric mirror machine. Physics of Plasmas, 2019, 26, .	1.9	4
41	A Comparison of Results from an Edge-Plasma Model with Those from a Two-Dimensional Fluid Code. Fusion Science and Technology, 1992, 21, 1416-1420.	0.6	3
42	Comparisons of experimental measurements and two-dimensional plasma-fluid numerical simulations of a magnetized plasma column. Physics of Plasmas, 1996, 3, 4250-4267.	1.9	3
43	The Princeton FRC Rotating-Magnetic-Field-Experiment RF System. , 2007, , .		3
44	Particle-in-Cell Modeling of Field Reversed Configuration Formation by Odd-parity Rotating Magnetic Fields. Journal of Fusion Energy, 2010, 29, 584-587.	1.2	3
45	Space Nuclear Power Systems - Direct Fusion Drive. , 2018, , .		3
46	The effect of rigid electron rotation on the Grad-Shafranov equilibria of a class of FRC devices. Nuclear Fusion, 2021, 61, 086023.	3.5	3
47	Interpreting ion-energy distributions using charge exchange emitted from deeply kinetic field-reversed-configuration plasmas. Physics of Plasmas, 2022, 29, .	1.9	2
48	Thermal desorption measurements of hydrogen isotope retention in the Alcator-A tokamak. Journal of Vacuum Science and Technology, 1980, 17, 306-309.	1.9	1
49	Two-Dimensional Argon-Ion Velocity Distributions in the Expansion Region of a Helicon Plasma Source. IEEE Transactions on Plasma Science, 2008, 36, 1216-1217.	1.3	1
50	Use of Polycarbonate Vacuum Vessels in High-Temperature Fusion-Plasma Research. Fusion Science and Technology, 2013, 64, 298-302.	1.1	1
51	Summary Abstract: Surface analysis of TFTR vacuum vessel samples subjected to the post-weld heat treatment. Journal of Vacuum Science and Technology, 1981, 18, 1072-1072.	1.9	0
52	Instrument for measuring the momentum flux from atomic and charged particle jets (abstract). Review of Scientific Instruments, 1990, 61, 3148-3148.	1.3	0
53	LSP simulation of the formation of a field reversed configuration plasma with odd-parity rotating magnetic fields. , 2009, , .		0
54	Non-Invasive Neutral Atom Density Measurements using fs-TALIF in a Magnetic Linear Plasma Device. , 2021, , .		0