David Field

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3376939/publications.pdf

Version: 2024-02-01

69 papers	1,208 citations	279487 23 h-index	414034 32 g-index
70 all docs	70 docs citations	70 times ranked	585 citing authors

#	Article	IF	Citations
1	Ion energy distributions in radioâ€frequency discharges. Journal of Applied Physics, 1991, 70, 82-92.	1.1	56
2	Modeling radioâ€frequency discharges: Effects of collisions upon ion and neutral particle energy distributions. Journal of Applied Physics, 1992, 71, 3721-3730.	1.1	51
3	Spontaneous Dipole Alignment in Films of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="bold">N</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="bold">O</mml:mi></mml:math>. Physical Review Letters, 2009, 102, 073003.	2.9	43
4	High-resolution studies of electron scattering by molecular oxygen. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 171-188.	0.6	42
5	Experimental evidence for a virtual state in a cold collision:â€ƒElectrons and carbon dioxide. Physical Review A, 2001, 64, .	1.0	42
6	Low-energy electron scattering from CH4, C2H4and C2H6. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 1407-1422.	0.6	40
7	Spontaneous electric fields in solid films: spontelectricsâ˜†. International Reviews in Physical Chemistry, 2013, 32, 345-392.	0.9	40
8	A high-resolution synchrotron photoionization spectrometer for the study of low-energy electron-molecule scattering. Measurement Science and Technology, 1991, 2, 757-769.	1.4	39
9	Low energy electron scattering in H2, N2and O2. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 2369-2382.	0.6	39
10	An undulator-based spherical grating monochromator beamline for low energy electron-molecule scattering experiments. Review of Scientific Instruments, 2002, 73, 4157-4163.	0.6	39
11	The Quantum World of Cold Electron Collisions. Accounts of Chemical Research, 2001, 34, 291-298.	7.6	38
12	The amplification of celestial maser radiation in the general many-level case. Monthly Notices of the Royal Astronomical Society, 1988, 234, 353-372.	1.6	35
13	Low-energy electron scattering by SF6. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 2899-2909.	0.6	34
14	Very low energy electron scattering in C6H5F, C6H5Cl, C6H5Br and C6H5I. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 2707-2717.	0.6	32
15	Very low-energy electron scattering from benzene: experiment and theory. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 4371-4381.	0.6	29
16	Rotational Excitation ofH2Oby Cold Electrons. Physical Review Letters, 2006, 97, 123202.	2.9	29
17	Cold electron scattering inSF6andC6F6: Bound and virtual state channels. Physical Review A, 2004, 69, .	1.0	28
18	Spontaneous electric fields in solid carbon monoxide. Physical Chemistry Chemical Physics, 2015, 17, 30177-30187.	1.3	27

#	Article	IF	Citations
19	Excitation conditions in the Orion molecular cloud obtained from observations of ortho- and para-lines of H$_ {sf 2}$. Astronomy and Astrophysics, 2007, 469, 561-574.	2.1	27
20	A new form of spontaneously polarized material. Physical Chemistry Chemical Physics, 2011, 13, 21035.	1.3	26
21	Spontaneous electric fields in films of cis-methyl formate. Physical Chemistry Chemical Physics, 2012, 14, 9972.	1.3	25
22	Giant Resonances in Cold Electron Scattering byCS2. Physical Review Letters, 2002, 89, 093201.	2.9	23
23	Preparation of DNA films for studies under vacuum conditions. European Physical Journal D, 2010, 60, 31-36.	0.6	23
24	Transmission and Trapping of Cold Electrons in Water Ice. Journal of Physical Chemistry A, 2011, 115, 6820-6824.	1.1	23
25	DYNAMICAL STRUCTURE OF THE INNER 100 AU OF THE DEEPLY EMBEDDED PROTOSTAR IRAS 16293â€“2422. Astrophysical Journal, 2014, 790, 55.	1.6	22
26	Monte Carlo simulations of electron distributions in the sheath region of reactiveâ€ionâ€etching plasmas. Journal of Applied Physics, 1993, 73, 1634-1643.	1.1	21
27	ENABLING STAR FORMATION VIA SPONTANEOUS MOLECULAR DIPOLE ORIENTATION IN ICY SOLIDS. Astrophysical Journal, 2016, 832, 1.	1.6	20
28	Time delays in cold elastic scattering. Journal of Chemical Physics, 2003, 118, 1679-1683.	1.2	19
29	Spontaneous electric fields in films of CF₃Cl, CF₂Cl₂and CFCl₃. Physical Chemistry Chemical Physics, 2013, 15, 108-113.	1.3	18
30	Investigations into the nature of spontelectrics: nitrous oxide diluted in xenon. Physical Chemistry Chemical Physics, 2014, 16, 23843-23853.	1.3	17
31	A review of recent progress in understanding the spontelectric state of matter. European Physical Journal D, 2017, 71, 1.	0.6	17
32	Low-energy total electron scattering in the methyl halides CH3Cl, CH3Br and CH3I. International Journal of Mass Spectrometry, 2008, 277, 91-95.	0.7	16
33	The influence of the substrate temperature on the preparation of DNA films for studies under vacuum conditions. European Physical Journal D, 2011, 62, 197-203.	0.6	16
34	Electric Field Structures in Thin Films: Formation and Properties. Journal of Physical Chemistry A, 2014, 118, 6615-6621.	1.1	16
35	Spontaneously electrical solids in a new light. Physical Chemistry Chemical Physics, 2015, 17, 20971-20980.	1.3	16
36	Scattering of cold electrons by ammonia, hydrogen sulfide, and carbonyl sulfide. Physical Review A, 2008, 78, .	1.0	15

#	Article	IF	Citations
37	Electron scattering in chlorine dioxide. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 1039-1046.	0.6	14
38	Dipole-Oriented Molecular Solids Can Undergo a Phase Change and Still Maintain Electrical Polarization. Journal of Physical Chemistry C, 2016, 120, 24130-24136.	1.5	13
39	Spontaneous polarization of solid CO on water ices and some astrophysical implications. Physical Chemistry Chemical Physics, 2016, 18, 5159-5171.	1.3	13
40	Optical spectroscopic study of mechanisms in CCl4plasma etching of Si. Journal of Applied Physics, 1990, 67, 1525-1534.	1.1	12
41	Reaction and Scattering in Cold Electron Collisions. Physical Review Letters, 2003, 90, 083201.	2.9	12
42	Wannier-Mott Excitons in Nanoscale Molecular Ices. Physical Review Letters, 2017, 119, 157703.	2.9	12
43	A mechanism for ageing in a deeply supercooled molecular glass. Chemical Communications, 2021, 57, 6368-6371.	2.2	10
44	A new class of spontaneously polarized materials. Europhysics News, 2011, 42, 32-35.	0.1	9
45	Non-linear and non-local behaviour in spontaneously electrical solids. Physical Chemistry Chemical Physics, 2018, 20, 5112-5116.	1.3	9
46	Assigning a structural motif using spontaneous molecular dipole orientation in thin films. Physical Chemistry Chemical Physics, 2018, 20, 29038-29044.	1.3	9
47	Crystallites and Electric Fields in Solid Ammonia. ChemistryOpen, 2020, 9, 983-990.	0.9	8
48	The optical absorption spectra of spontaneously electrical solids: the case of nitrous oxide. Physical Chemistry Chemical Physics, 2019, 21, 1190-1197.	1.3	7
49	A Model for the Variability of SIO Masers in Mira Variables. Astrophysics and Space Science, 1997, 251, 215-218.	0.5	5
50	Vibrationally-rotationally inelastic cross sections for H+SiO collisions. Journal of Chemical Physics, 2002, 116, 1388-1396.	1.2	5
51	Virtual state scattering with cold electrons: para-xylene and para-difluorobenzene. Journal of Chemical Physics, 2005, 122, 074301.	1.2	5
52	Theoretical modelling of SiO maser lineshapes. Astrophysics and Space Science, 1995, 224, 63-68.	0.5	4
53	A laser transition based on fluctuations. Nature, 1988, 333, 540-542.	13.7	3
54	Cold Collisions of Electrons with Molecules. Few-Body Systems, 2002, 31, 191-197.	0.7	2

#	Article	IF	Citations
55	The determination of absolute anion formation cross sections from electron beam scattering data. Journal of Chemical Physics, 2005, 122, 024309.	1.2	2
56	Chiral recognition in electron scattering by S- and R-2-butanol. Molecular Physics, 2015, 113, 2197-2203.	0.8	2
57	Librating dipoles as a probe of spontaneously electrical films and as a source of THz radiation. Physical Chemistry Chemical Physics, 2019, 21, 26606-26614.	1.3	2
58	Low temperature aging in a molecular glass: the case of cis-methyl formate. Physical Chemistry Chemical Physics, 2021, 23, 15719-15726.	1.3	2
59	The rise of an exciton in solid ammonia. Chemical Communications, 2021, , .	2.2	2
60	Î›-Doublet Population Inversion in Collisions of OH, OD, CH, CD and NH⁺. Symposium - International Astronomical Union, 1980, 87, 583-587.	0.1	1
61	Experimental Study of H 2 Formation on Ices. Proceedings of the International Astronomical Union, 2005, 1, 337.	0.0	1
62	Comment on â€œSpontaneous Polarization of Cryo-Deposited Films for Five Normal Saturated Monohydroxy Alcohols, CnH2n+1OH, n = 1â€“5â€• Journal of Physical Chemistry B, 2021, 125, 7568-7569.	1.2	1
63	Molecular Synthesis in Interstellar Clouds: the Radiative Association Reaction H + OH â† H₂O + hν. Symposium - International Astronomical Union, 1980, 87, 289-290.	0.1	0
64	Modelling interstellar water masers. Astrophysics and Space Science, 1995, 224, 583-584.	0.5	0
65	Hydrogen in Photodissociation Regions: NGC2023 and NGC7023. , 2000, , 155-160.		0
66	Circumnuclear Dynamics in Mrk 273 and Mrk 231. Symposium - International Astronomical Union, 2001, 205, 212-215.	0.1	0
67	Probing turbulence in OMC1 at the star forming scale: observations and simulations. Proceedings of the International Astronomical Union, 2006, 2, 183-187.	0.0	0
68	A method for detecting preferred scale sizes. Proceedings of the International Astronomical Union, 2006, 2, 418-418.	0.0	0
69	Acceleration of ion recombination reaction rates in cold dark clouds through spontaneous polarization charge on CO ice mantles. Proceedings of the International Astronomical Union, 2019, 15, 390-391.	0.0	0