Milva Celli

List of Publications by Year
in descending order

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74 papers	1,483 citations	331670 21 h-index	345221 36 g-index
75 all docs	75 docs citations	75 times ranked	1089 citing authors

#	Article	IF	Citations
1	Irreversible structural changes of recovered hydrogen hydrate transforming from C0 phase to ice XVII. Chemical Physics, 2021, 544, 111092.	1.9	4
2	Density of Phonon States in Cubic Ice Ic. Journal of Physical Chemistry C, 2021, 125, 23533-23538.	3.1	4
3	Collective dynamics of liquid deuterium: Neutron scattering and approximate quantum simulation methods. Physical Review B, 2021, 104, .	3.2	8
4	Raman Investigation of the Ice Icâ€“Ice Ih Transformation. Journal of Physical Chemistry C, 2020, 124, 17135-17140.	3.1	11
5	Cubic ice Ic without stacking defects obtained from ice XVII. Nature Materials, 2020, 19, 663-668.	27.5	64
6	Hydrogen self-dynamics in diluted liquid mixtures with neon: An inelastic neutron scattering study. Physical Review E, 2019, 99, 012138.	2.1	2
7	Ne- and O₂-filled ice XVII: a neutron diffraction study. Physical Chemistry Chemical Physics, 2019, 21, 14671-14677.	2.8	12
8	Vibrational Modes of Hydrogen Hydrates: A First-Principles Molecular Dynamics and Raman Spectra Study. Journal of Physical Chemistry C, 2017, 121, 3690-3696.	3.1	29
9	Ice XVII as a Novel Material for Hydrogen Storage. Challenges, 2017, 8, 3.	1.7	13
10	Dynamics of hydrogen guests in ice XVII nanopores. Physical Review Materials, 2017, 1, .	2.4	9
11	Velocity autocorrelation by quantum simulations for direct parameter-free computations of the neutron cross sections. II. Liquid deuterium. Physical Review B, 2016, 93, .	3.2	9
12	New porous water ice metastable at atmospheric pressure obtained by emptying a hydrogen-filled ice. Nature Communications, 2016, 7, 13394.	12.8	106
13	Refined Structure of Metastable Ice XVII from Neutron Diffraction Measurements. Journal of Physical Chemistry C, 2016, 120, 26955-26959.	3.1	43
14	Velocity autocorrelation in liquid parahydrogen by quantum simulations for direct parameter-free computations of neutron cross sections. Physical Review B, 2015, 92, .	3.2	11
15	Hydrogen self-dynamics in liquidH2â^'D2mixtures studied through inelastic neutron scattering. Physical Review E, 2015, 92, 012311.	2.1	10
16	VSI@ESS: Case study for a vibrational spectroscopy instrument at the european spallation source. EPJ Web of Conferences, 2015, 83, 03021.	0.3	1
17	Raman Measurements of Pure Hydrogen Clathrate Formation from a Supercooled Hydrogenâ€“Water Solution. Journal of Physical Chemistry Letters, 2015, 6, 4309-4313.	4.6	19
18	On the non-Gaussian corrections in the self dynamics of semi-quantum fluids. Chemical Physics, 2015, 446, 57-64.	1.9	6

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19	The HD molecule in small and medium cages of clathrate hydrates: Quantum dynamics studied by neutron scattering measurements and computation. Journal of Chemical Physics, 2014, 141, 134501.	3.0	16
20	Spectroscopic and thermodynamic properties of molecular hydrogen dissolved in water at pressures up to 200 MPa. Journal of Chemical Physics, 2014, 140, 164312.	3.0	11
21	Neutron Scattering Measurements and Computation of the Quantum Dynamics of Hydrogen Molecules Trapped in the Small and Large Cages of Clathrate Hydrates. Journal of Physical Chemistry A, 2013, 117, 7314-7326.	2.5	33
22	Rigorous quantum treatment of inelastic neutron scattering spectra of a heteronuclear diatomic molecule in a nanocavity: HD in the small cage of structure II clathrate hydrate. Chemical Physics Letters, 2013, 563, 1-8.	2.6	32
23	Inelastic neutron scattering from solid molecular hydrogen at various densities. Chemical Physics, 2013, 427, 101-105.	1.9	2
24	Experimental inelastic neutron scattering spectrum of hydrogen hexagonal clathrate-hydrate compared with rigorous quantum simulations. Journal of Chemical Physics, 2013, 139, 164507.	3.0	20
25	Neutron study of non-Gaussian self dynamics in liquid parahydrogen. Journal of Physics: Conference Series, 2012, 340, 012076.	0.4	1
26	High pressure optical cell for synthesis and in situ Raman spectroscopy of hydrogen clathrate hydrates. Review of Scientific Instruments, 2012, 83, 113101.	1.3	11
27	High pressure synthesis and in situ Raman spectroscopy of H2 and HD clathrate hydrates. Journal of Chemical Physics, 2012, 137, 164320.	3.0	16
28	Phonon density of states in different clathrate hydrates measured by inelastic neutron scattering. Journal of Physics: Conference Series, 2012, 340, 012051.	0.4	16
29	Experimental and theoretical analysis of the rotational Raman spectrum of hydrogen molecules in clathrate hydrates. Journal of Chemical Physics, 2011, 135, 054506.	3.0	18
30	Quantum calculation of inelastic neutron scattering spectra of a hydrogen molecule inside a nanoscale cavity based on rigorous treatment of the coupled translation-rotation dynamics. Physical Review B, 2011, 83, .	3.2	52
31	Non-Gaussian self-dynamics of liquid hydrogen. Physical Review B, 2011, 84, .	3.2	10
32	Quantum confinement of hydrogen in ice based clathrates. Journal of Physics: Conference Series, 2009, 177, 012013.	0.4	2
33	Inelastic neutron scattering from hydrogen clathrate hydrates. Journal of Physics Condensed Matter, 2008, 20, 104242.	1.8	32
34	An apparatus for simultaneous thermodynamic and optical measurements, with large temperature excursions. Review of Scientific Instruments, 2008, 79, 013105.	1.3	12
35	Neutron diffractometer INES for quantitative phase analysis of archaeological objects. Measurement Science and Technology, 2008, 19, 034003.	2.6	60
36	Low temperature Raman spectra of hydrogen in simple and binary clathrate hydrates. Journal of Chemical Physics, 2008, 129, 084705.	3.0	57

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37	Inelastic neutron scattering and raman light scattering from hydrogen-filled clathrates hydrates. Journal of Physics: Conference Series, 2008, 121, 042018.	0.4	1
38	Lattice vibrations of para-hydrogen impurities in a solid deuterium matrix: An inelastic neutron scattering study. Physical Review B, 2007, 76, .	3.2	7
39	Quantum rattling of molecular hydrogen in clathrate hydrate nanocavities. Physical Review B, 2007, 76, .	3.2	82
40	Hydrogen and Hydrogen-Storage Materials. Neutron Scattering Applications and Techniques, 2007, , 417-437.	0.2	0
41	Structure and purity of single walled carbon nanotube samples. Carbon, 2007, 45, 943-951.	10.3	4
42	A new ceramic material for shielding pulsed neutron scattering instruments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 565, 861-863.	1.6	56
43	Microscopic self dynamics in liquid hydrogen and in its mixtures with deuterium and neon: a neutron scattering study. Journal of Low Temperature Physics, 2005, 138, 887-892.	1.4	2
44	Microscopic structure factor of liquid hydrogen by neutron-diffraction measurements. Physical Review B, 2005, 71, .	3.2	22
45	Density of phonon states in solid parahydrogen from inelastic neutron scattering. Journal of Chemical Physics, 2004, 120, 5657-5663.	3.0	21
46	Microscopic self-dynamics in liquid hydrogen and in its mixtures with deuterium. Physical Review E, 2004, 70, 061202.	2.1	18
47	The static structure factor of hydrogen in the liquid state. Physica B: Condensed Matter, 2004, 350, E1067-E1069.	2.7	0
48	Long-range pair potential from the low-density S(k) of 4He around 6K. Physica B: Condensed Matter, 2004, 350, E1059-E1061.	2.7	3
49	The total neutron cross-section of an orthoâ€“para mixture of gaseous hydrogen at 75K. Physica B: Condensed Matter, 2004, 350, E1063-E1065.	2.7	1
50	SWCN characterization by neutron diffraction. Physica B: Condensed Matter, 2004, 350, E1027-E1029.	2.7	10
51	Breakdown of the Gaussian approximation in semi-quantum liquids. Physica B: Condensed Matter, 2004, 350, E1083-E1086.	2.7	2
52	The microscopic structure of the hydrogen liquids. Journal of Physics Condensed Matter, 2003, 15, S107-S112.	1.8	4
53	Microscopic structure factor of liquid para-hydrogen. Physical Review B, 2002, 65, .	3.2	31
54	Direct experimental access to microscopic dynamics in liquid hydrogen. Physical Review E, 2002, 66, 021202.	2.1	35

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55	TOSCA neutron spectrometer: The final configuration. Applied Physics A: Materials Science and Processing, 2002, 74, s64-s66.	2.3	180
56	Neutron diffraction study of quantum effects on the pair correlation function of low-density 4 He. Applied Physics A: Materials Science and Processing, 2002, 74, s418-s420.	2.3	1
57	Quantitative multiphase analysis of archaeological bronzes by neutron diffraction. Applied Physics A: Materials Science and Processing, 2002, 74, s1139-s1142.	2.3	40
58	The microscopic dynamics of condensed parahydrogen. Applied Physics A: Materials Science and Processing, 2002, 74, s430-s432.	2.3	0
59	The Microscopic Structure of Hydrogens in the Liquid Phase. Journal of Low Temperature Physics, 2002, 126, 579-584.	1.4	0
60	The Microscopic Dynamics of Liquid and Solid Parahydrogen. Journal of Low Temperature Physics, 2002, 126, 585-590.	1.4	6
61	Density dependence of mean kinetic energy in liquid and solid hydrogen at 19.3 K. European Physical Journal B, 2001, 23, 171-178.	1.5	23
62	Microscopic dynamics of liquid hydrogen. Europhysics Letters, 2001, 53, 34-39.	2.0	11
63	The measurement of the translational kinetic energy of liquid hydrogen using TOSCA. Physica B: Condensed Matter, 2000, 276-278, 814-815.	2.7	0
64	An inverse geometry neutron scattering spectrometer with graphite Venetian blind crystal analyser and a para-hydrogen filter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 441, 494-503.	1.6	2
65	Experimental determination of the translational kinetic energy of liquid and solid hydrogen. European Physical Journal B, 2000, 14, 239-244.	1.5	25
66	Deep inelastic neutron scattering on liquid hydrogen in the crossover region between the molecular and atomic regimes. Physical Review B, 1998, 58, 791-797.	3.2	19
67	Kinetic energy of4Healong theT=6.1K isotherm. Physical Review B, 1998, 58, 242-247.	3.2	25
68	Quantum Mechanical Effects on the Static Structure Factor of Pairs of Orthodeuterium Molecules. Physical Review Letters, 1998, 81, 5828-5831.	7.8	6
69	Neutron diffraction determination of the thermodynamic derivatives of the microscopic structure of liquid parahydrogen. Physical Review B, 1998, 58, 11905-11910.	3.2	21
70	Deep inelastic neutron scattering in condensed hydrogen. Physica B: Condensed Matter, 1996, 226, 304-312.	2.7	9
71	Theory of the density expansion of the dynamic structure factor: The pair contribution. Physical Review A, 1992, 46, 7561-7572.	2.5	3
72	Theory of virial expansion of correlation functions and spectra: Application to interaction-induced spectroscopy. Physical Review A, 1989, 40, 1116-1126.	2.5	25

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73	Interaction-induced translational Raman scattering in dense krypton gas: Evidence of irreducible many-body effects. Physical Review A, 1988, 38, 3984-3991.	2.5	15
74	Simple and Binary Hydrogen Clathrate Hydrates: Synthesis and Microscopic Characterization through Neutron and Raman Scattering. Advances in Science and Technology, 0, , .	0.2	3