

Daniele Colognesi

List of Publications by Year in descending order

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papers

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623734

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docs citations

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522
citing authors

#	ARTICLE	IF	CITATIONS
1	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. <i>Physical Review B</i> , 2011, 83, .	3.2	52
2	Nuclear quantum effects in <i>ab initio</i> dynamics: Theory and experiments for lithium imide. <i>Physical Review B</i> , 2010, 82, .	3.2	43
3	Refined Structure of Metastable Ice XVII from Neutron Diffraction Measurements. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26955-26959.	3.1	43
4	Neutron Scattering Measurements and Computation of the Quantum Dynamics of Hydrogen Molecules Trapped in the Small and Large Cages of Clathrate Hydrates. <i>Journal of Physical Chemistry A</i> , 2013, 117, 7314-7326.	2.5	33
5	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. <i>Chemical Physics Letters</i> , 2013, 563, 1-8.	2.6	32
6	The vibrational spectroscopy of indigo: A reassessment. <i>Vibrational Spectroscopy</i> , 2009, 50, 268-276.	2.2	31
7	Anomalous H/D cross-sections in deep inelastic neutron scattering: some critical remarks on two current theoretical explanations. <i>Physica B: Condensed Matter</i> , 2004, 344, 73-81.	2.7	20
8	Experimental inelastic neutron scattering spectrum of hydrogen hexagonal clathrate-hydrate compared with rigorous quantum simulations. <i>Journal of Chemical Physics</i> , 2013, 139, 164507.	3.0	20
9	Vibrational Spectroscopy of Superconducting MgB ₂ by Neutron Inelastic Scattering. <i>Journal of the Physical Society of Japan</i> , 2001, 70, 1480-1482.	1.6	18
10	Can non-Born-Oppenheimer effects cause anomalous neutron cross-sections in molecular hydrogen?. <i>Physica B: Condensed Matter</i> , 2005, 358, 114-125.	2.7	18
11	Impact of the Condensed-Phase Environment on the Translation-Rotation Eigenstates and Spectra of a Hydrogen Molecule in Clathrate Hydrates. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 308-313.	4.6	18
12	Wavelet imaging of transient energy localization in nonlinear systems at thermal equilibrium: The case study of NaI crystals at high temperature. <i>Physical Review B</i> , 2019, 99, .	3.2	18
13	Microscopic Structure in Liquid Hydrogen and Deuterium: An X-Ray Scattering Study. <i>Journal of Low Temperature Physics</i> , 2002, 129, 117-131.	1.4	16
14	The HD molecule in small and medium cages of clathrate hydrates: Quantum dynamics studied by neutron scattering measurements and computation. <i>Journal of Chemical Physics</i> , 2014, 141, 134501.	3.0	16
15	VESPA: The vibrational spectrometer for the European Spallation Source. <i>Review of Scientific Instruments</i> , 2016, 87, 065101.	1.3	11
16	Binuclear Hydridoplatinum(II): One-Pot Synthesis, INS Spectra and X-ray Crystal Structure of [Pt ₂ (dcype) ₂ (H) ₃][BPh ₄] {dcype = 1,2-Bis(dicyclohexylphosphanyl)ethane}. <i>European Journal of Inorganic Chemistry</i> , 2003, 2003, 3958-3967.	2.0	10
17	Non-Gaussian self-dynamics of liquid hydrogen. <i>Physical Review B</i> , 2011, 84, .	3.2	10
18	Hydrogen self-dynamics in liquid H ₂ -D ₂ mixtures studied through inelastic neutron scattering. <i>Physical Review E</i> , 2015, 92, 012311.	2.1	10

#	ARTICLE	IF	CITATIONS
19	The reverse Monte Carlo technique applied to fluids of diatomic molecules. <i>Molecular Physics</i> , 1996, 88, 465-476.	1.7	9
20	Dynamics of hydrogen guests in ice XVII nanopores. <i>Physical Review Materials</i> , 2017, 1, .	2.4	9
21	Collective dynamics of liquid deuterium: Neutron scattering and approximate quantum simulation methods. <i>Physical Review B</i> , 2021, 104, .	3.2	8
22	Dynamical Origin of the Total and Zero-Point Kinetic Energy in a Quantum Fluid. <i>Physical Review Letters</i> , 2019, 123, 135301.	7.8	7
23	The Microscopic Dynamics of Liquid and Solid Parahydrogen. <i>Journal of Low Temperature Physics</i> , 2002, 126, 585-590.	1.4	6
24	ELECTRONIC PRINCIPLES OF SOME TRENDS IN PROPERTIES OF METALLIC HYDRIDES. <i>International Journal of Modern Physics B</i> , 2010, 24, 703-710.	2.0	6
25	Density dependence of the dynamical processes governing the velocity autocorrelation function of a quantum fluid. <i>Physical Review E</i> , 2019, 100, 062111.	2.1	6
26	Irreversible structural changes of recovered hydrogen hydrate transforming from CO phase to ice XVII. <i>Chemical Physics</i> , 2021, 544, 111092.	1.9	4
27	Density of Phonon States in Cubic Ice Ic. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23533-23538.	3.1	4
28	Simple and Binary Hydrogen Clathrate Hydrates: Synthesis and Microscopic Characterization through Neutron and Raman Scattering. <i>Advances in Science and Technology</i> , 0, , .	0.2	3
29	Proton Dynamics in Palladium-Silver: An Inelastic Neutron Scattering Investigation. <i>Molecules</i> , 2020, 25, 5587.	3.8	3
30	Time dependence of quantum correlation functions. <i>Physical Review E</i> , 2020, 101, 052110.	2.1	3
31	Inelastic neutron scattering and DFT study of potassium hydrogen phthalate. <i>Journal of Molecular Structure</i> , 2010, 967, 89-93.	3.6	2
32	Inelastic neutron scattering from solid molecular hydrogen at various densities. <i>Chemical Physics</i> , 2013, 427, 101-105.	1.9	2
33	The high energy-transfer region in neutron scattering vibrational spectra: What does it mean and what could it be useful for?. <i>Journal of Neutron Research</i> , 2017, 19, 147-167.	1.1	2
34	High-pressure vibrational properties of dense rubidium. <i>Physical Review B</i> , 2018, 98, .	3.2	2
35	Hydrogen self-dynamics in diluted liquid mixtures with neon: An inelastic neutron scattering study. <i>Physical Review E</i> , 2019, 99, 012138.	2.1	2
36	Neutron study of non-Gaussian self dynamics in liquid parahydrogen. <i>Journal of Physics: Conference Series</i> , 2012, 340, 012076.	0.4	1

#	ARTICLE	IF	CITATIONS
37	VSI@ESS: Case study for a vibrational spectroscopy instrument at the european spallation source. EPJ Web of Conferences, 2015, 83, 03021.	0.3	1
38	Microscopic self dynamics in liquids: Connections between the Gaussian approximation and the asymptotic impulsive regime. Physica B: Condensed Matter, 2017, 515, 56-66.	2.7	1
39	The measurement of the translational kinetic energy of liquid hydrogen using TOSCA. Physica B: Condensed Matter, 2000, 276-278, 814-815.	2.7	0
40	Hydrogen and Hydrogen-Storage Materials. Neutron Scattering Applications and Techniques, 2007, , 417-437.	0.2	0
41	Dynamic coherence effects in deep inelastic neutron scattering: Many-body treatment and intra-molecular terms. Physica B: Condensed Matter, 2020, 585, 412112.	2.7	0
42	Exploring ultra-fast proton dynamics in water under a static electric field. Europhysics Letters, 2021, 133, 57002.	2.0	0
43	Microscopic collective dynamics in liquid neon-deuterium mixtures: Inelastic neutron scattering and quantum simulations. Physical Review E, 2022, 105, .	2.1	0