

Andrea Di Cicco

List of Publications by Year in descending order

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111
papers

3,978
citations

136740

32
h-index

123241

61
g-index

111
all docs

111
docs citations

111
times ranked

4054
citing authors

#	ARTICLE	IF	CITATIONS
1	X-ray-absorption spectroscopy and n-body distribution functions in condensed matter. I. Theory. <i>Physical Review B</i> , 1995, 52, 15122-15134.	1.1	493
2	X-ray-absorption spectroscopy and n-body distribution functions in condensed matter. II. Data analysis and applications. <i>Physical Review B</i> , 1995, 52, 15135-15149.	1.1	393
3	Identification of durable and non-durable FeNx sites in Fe-N-C materials for proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2021, 4, 10-19.	16.1	368
4	Novel XAFS capabilities at ELETTRA synchrotron light source. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012043.	0.3	177
5	An experimental station for advanced research on condensed matter under extreme conditions at the European Synchrotron Radiation Facility - BM29 beamline. <i>Review of Scientific Instruments</i> , 2000, 71, 2422-2432.	0.6	174
6	Is There Icosahedral Ordering in Liquid and Undercooled Metals?. <i>Physical Review Letters</i> , 2003, 91, 135505.	2.9	148
7	Nearest-neighbor oxygen distances in liquid water and ice observed by x-ray Raman based extended x-ray absorption fine structure. <i>Journal of Chemical Physics</i> , 2007, 127, 174504.	1.2	118
8	Phase Transitions in Confined Gallium Droplets. <i>Physical Review Letters</i> , 1998, 81, 2942-2945.	2.9	116
9	Is the Solid Electrolyte Interphase an Extra-Charge Reservoir in Li-Ion Batteries?. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4570-4576.	4.0	74
10	Microstructural defects in nanocrystalline iron probed by x-ray-absorption spectroscopy. <i>Physical Review B</i> , 1994, 50, 12386-12397.	1.1	70
11	Atomic background in x-ray absorption spectra of fifth-period elements: Evidence for double-electron excitation edges. <i>Physical Review A</i> , 1995, 52, 1072-1078.	1.0	66
12	EXAFS studies of FeMo-cofactor and MoFe protein: Direct evidence for the long-range Mo-Fe-Fe interaction and cyanide binding to the Mo in FeMo-cofactor. <i>Journal of the American Chemical Society</i> , 1994, 116, 2418-2423.	6.6	63
13	New Advances in the Study of Local Structure of Molten Binary Salts. <i>Physical Review Letters</i> , 1997, 78, 460-463.	2.9	59
14	Reduced Graphene Oxide/TiO2 Nanocomposite: From Synthesis to Characterization for Efficient Visible Light Photocatalytic Applications. <i>Catalysts</i> , 2018, 8, 598.	1.6	55
15	Unraveling the role of Ti in the stability of positive layered oxide electrodes for rechargeable Na-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14169-14179.	5.2	55
16	Multiple-edge EXAFS refinement: Short-range structure in liquid and crystalline Sn. <i>Physical Review B</i> , 1996, 53, 6174-6185.	1.1	54
17	The structure of lead-silicate glasses: molecular dynamics and EXAFS studies. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 9781-9797.	0.7	53
18	Local ordering of nanostructured Pt probed by multiple-scattering XAFS. <i>Physical Review B</i> , 2007, 76, .	1.1	49

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19	Polyamorphic transition of germanium under pressure. <i>Physical Review B</i> , 2004, 69, .	1.1	48
20	Structure of Undercooled Liquid Pd Probed by X-Ray Absorption Spectroscopy. <i>Physical Review Letters</i> , 1999, 83, 560-563.	2.9	47
21	Short-range structure of solid and liquid AgBr determined by multiple-edge x-ray absorption spectroscopy. <i>Physical Review B</i> , 2000, 62, 12001-12013.	1.1	44
22	Band Gap Implications on Nano-TiO ₂ Surface Modification with Ascorbic Acid for Visible Light-Active Polypropylene Coated Photocatalyst. <i>Nanomaterials</i> , 2018, 8, 599.	1.9	44
23	Supercooling of liquid-metal droplets for x-ray-absorption-spectroscopy investigations. <i>Physical Review B</i> , 1994, 49, 11749-11758.	1.1	43
24	An XAS experimental approach to study low Pt content electrocatalysts operating in PEM fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 9987.	1.3	41
25	Hydration Properties of the Zn ²⁺ Ion in Water at High Pressure. <i>Inorganic Chemistry</i> , 2013, 52, 1141-1150.	1.9	41
26	Multiple-Edge XAS Studies of Cyanide-Bridged Iron ^{II} -Copper Molecular Assemblies Relevant to Cyanide-Inhibited Heme ^{II} -Copper Oxidases Using Four-Body Multiple-Scattering Analysis. <i>Journal of the American Chemical Society</i> , 1997, 119, 2470-2478.	6.6	39
27	Reverse Monte Carlo refinement of molecular and condensed systems by x-ray absorption spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S135-S144.	0.7	37
28	High-pressure and high-temperature study of phase transitions in solid germanium. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 240, 19-28.	0.7	36
29	SEI Growth and Depth Profiling on ZFO Electrodes by Soft X-ray Absorption Spectroscopy. <i>Advanced Energy Materials</i> , 2015, 5, 1500642.	10.2	34
30	Evidence for [2p(s)4f] multielectron resonances in x-ray-absorption spectra of sixth-period elements. <i>Physical Review B</i> , 1994, 49, 12564-12571.	1.1	33
31	High-pressure and high-temperature x-ray absorption study of liquid and solid gallium. <i>Physical Review B</i> , 2001, 65, .	1.1	33
32	EIS: the scattering beamline at FERMI. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 553-564.	1.0	33
33	Scaling up $\text{Li}_4\text{Ti}_5\text{O}_{12}$ for High-Power Lithium-Ion Anodes Using Large Scale Flame Spray Pyrolysis. <i>Journal of the Electrochemical Society</i> , 2015, 162, A2331-A2338.	1.3	32
34	Structural disorder in liquid and solid CuI at high temperature probed by x-ray absorption spectroscopy. <i>Physical Review B</i> , 2002, 66, .	1.1	31
35	Structure of partially reduced bismuth ^{III} -silicate glasses: EXAFS and MD study. <i>Journal of Alloys and Compounds</i> , 2005, 401, 135-144.	2.8	30
36	Comment on "X-ray-absorption fine structure in embedded atoms". <i>Physical Review B</i> , 1996, 53, 9466-9467.	1.1	29

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37	Performance of a fuel cell optimized for in situ X-ray absorption experiments. Journal of Synchrotron Radiation, 2007, 14, 276-281.	1.0	29
38	Multichannel detector collimator for powder diffraction measurements at energy scanning x-ray absorption spectroscopy synchrotron radiation beamlines for high-pressure and high-temperature applications. Review of Scientific Instruments, 2003, 74, 2654-2663.	0.6	28
39	Pt-Co cathode electrocatalyst behaviour viewed by in situ XAFS fuel cell measurements. Journal of Power Sources, 2008, 178, 603-609.	4.0	27
40	Phase transitions and undercooling in confined gallium. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 2113-2120.	0.6	25
41	Local Ordering Changes in Pt-Co Nanocatalyst Induced by Fuel Cell Working Conditions. Journal of Physical Chemistry C, 2012, 116, 12791-12802.	1.5	25
42	Short-range order in solid and liquid KBr probed by EXAFS. Journal of Physics Condensed Matter, 1996, 8, 10779-10797.	0.7	24
43	Role of defective icosahedra in undercooled copper. Physical Review B, 2007, 75, .	1.1	24
44	Short-range structure in solid and liquid CuBr probed by multiple-edge x-ray-absorption spectroscopy. Physical Review B, 1997, 56, 11456-11464.	1.1	23
45	Polymorphism and metastable phenomena in liquid tin under pressure. Applied Physics Letters, 2006, 89, 221912.	1.5	20
46	Local structural and chemical ordering of nanosized Pt $\frac{1}{3} \text{Pt} \hat{\Gamma}$ probed by multiple-scattering x-ray absorption spectroscopy. Physical Review B, 2011, 83, .	1.1	18
47	Influence of hydrogen reduction on the structure of PbSiO ₃ glass: an EXAFS study. Journal of Non-Crystalline Solids, 2000, 276, 19-26.	1.5	17
48	Study of local icosahedral ordering in liquid and undercooled liquid copper. Journal of Non-Crystalline Solids, 2007, 353, 3671-3678.	1.5	17
49	Structural study of LiFePO ₄ -LiNiPO ₄ solid solutions. Journal of Power Sources, 2012, 213, 287-295.	4.0	17
50	Temperature and potential-dependent structural changes in a Pt cathode electrocatalyst viewed by in situ XAFS. Journal of Non-Crystalline Solids, 2008, 354, 4227-4232.	1.5	16
51	Evidence of KL double-electron excitations in x-ray photoemission spectra of solids: The case of MgO and MgF ₂ . Physical Review B, 1994, 49, 2226-2229.	1.1	15
52	Short-range disorder in pseudobinary ionic alloys. Physical Review B, 2002, 65, .	1.1	15
53	Testing interaction models by using x-ray absorption spectroscopy: solid Pb. Journal of Physics Condensed Matter, 2002, 14, 3365-3382.	0.7	15
54	Probing the local structure of liquid binary mixtures by x-ray absorption spectroscopy. Physical Review B, 2004, 70, .	1.1	14

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55	Disordered matter under extreme conditions: X-ray diffraction, electron spectroscopy and electroresistance measurements. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 4155-4165.	1.5	14
56	Probing matter under extreme conditions at Fermi@Elettra: the TIMEX beamline. <i>Proceedings of SPIE</i> , 2011, , .	0.8	14
57	Probing phase transitions under extreme conditions by ultrafast techniques: Advances at the Fermi@Elettra free-electron-laser facility. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 2641-2647.	1.5	14
58	X-ray absorption multiple-scattering study of angle distribution in high-Tc superconductors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 176, 375-381.	0.9	13
59	Local g(r) properties in liquids probed by high-temperature EXAFS. <i>Journal of Non-Crystalline Solids</i> , 1996, 205-207, 304-311.	1.5	13
60	Structure of crystalline and amorphous Ge probed by X-ray absorption and diffraction techniques. <i>High Pressure Research</i> , 2004, 24, 93-99.	0.4	13
61	Anomalies in the structure of solid Cd under pressure: an x-ray diffraction study. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 2625-2632.	0.7	13
62	Structure and atomic correlations in molecular systems probed by XAS reverse Monte Carlo refinement. <i>Journal of Chemical Physics</i> , 2018, 148, .	1.2	13
63	Structural evolution mechanisms of amorphous and liquid $\text{As}_{20}\text{Ge}_{80}$ at high pressures. <i>Physical Review B</i> , 2016, 93, .		
64	Emerging oxidized and defective phases in low-dimensional CrCl_3 . <i>Nanoscale Advances</i> , 2021, 3, 4756-4766.	2.2	12
65	Evolution of the nanostructure of Pt and Pt-Co polymer electrolyte membrane fuel cell electrocatalysts at successive degradation stages probed by X-ray photoemission. <i>Journal of Power Sources</i> , 2014, 271, 548-555.	4.0	11
66	Potassium-Doped Para-Terphenyl: Structure, Electrical Transport Properties and Possible Signatures of a Superconducting Transition. <i>Condensed Matter</i> , 2020, 5, 78.	0.8	11
67	Local structure in binary liquids probed by EXAFS. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 9341-9345.	0.7	10
68	Local structure in molecular complexes probed by multiple-scattering XAS. <i>Journal of Synchrotron Radiation</i> , 2003, 10, 46-50.	1.0	10
69	Interplay of electron heating and saturable absorption in ultrafast extreme ultraviolet transmission of condensed matter. <i>Physical Review B</i> , 2014, 90, .	1.1	10
70	Short-range interaction in liquid rhodium probed by x-ray absorption spectroscopy. <i>Journal of Physics Condensed Matter</i> , 1999, 11, L43-L49.	0.7	8
71	Structure of Water in Zn^{2+} Aqueous Solutions from Ambient Conditions up to the Gigapascal Pressure Range: A XANES and Molecular Dynamics Study. <i>Inorganic Chemistry</i> , 2017, 56, 14013-14022.	1.9	8
72	Crystal and electronic structure of Co_3O_4 spinel under pressure probed by XANES and Raman spectroscopy. <i>Physical Review B</i> , 2021, 103, .	1.1	8

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73	Short-range structural properties of Nd _{1.85} Ce _{0.15} CuO ₄ and Nd ₂ CuO ₄ studied by multiple-scattering EXAFS data analysis. <i>Physical Review B</i> , 1998, 57, 6067-6076.	1.1	7
74	EXAFS study on liquid gallium under high pressure and high temperature. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 776-778.	1.0	7
75	Liquid Rb micrometric droplets confined in paraffin wax: an X-ray absorption spectroscopy study. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 764-766.	1.0	7
76	Investigation of undercooled liquid metals using XAFS, temperature scans and diffraction. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 81-86.	1.0	7
77	A method for estimating the temperature in high energy density free electron laser experiments. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 621, 643-649.	0.7	7
78	Valence State of Pb in Transition Metal Perovskites PbTMO ₃ (TM = Ti, Ni) Determined From X-ray Absorption Near-Edge Spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800014.	0.7	7
79	Metallization of the Ge(111) surface at high-temperature probed by energy-loss and Auger spectroscopies. <i>Solid State Communications</i> , 2005, 134, 577-582.	0.9	6
80	gnxas: Advances in the Suite of Programs for Multiple-Scattering Analysis of X-ray Absorption Data. <i>Springer Proceedings in Physics</i> , 2018, , 221-256.	0.1	6
81	X-ray Absorption Spectroscopy investigations of disordered matter. <i>Radiation Physics and Chemistry</i> , 2020, 175, 108077.	1.4	6
82	Local structure of liquid and solid silver halides probed by XAFS. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 761-763.	1.0	5
83	Structure of liquid tin under high pressure by ab initio molecular-dynamics simulation. <i>Journal of Physics: Conference Series</i> , 2008, 98, 042010.	0.3	5
84	Modeling saturable absorption for ultra short X-ray pulses. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 196, 177-180.	0.8	5
85	New Graphical User Interface for EXAFS analysis with the GNXAS suite of programs. <i>Journal of Physics: Conference Series</i> , 2016, 712, 012002.	0.3	5
86	Modeling Non-Equilibrium Dynamics and Saturable Absorption Induced by Free Electron Laser Radiation. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 814.	1.3	5
87	Structural change of carbon supported Pt nanocatalyst subjected to a step-like potential cycling in PEM FC. <i>Journal of Non-Crystalline Solids</i> , 2014, 401, 169-174.	1.5	4
88	Double-edge X-ray absorption study of LiFe _{1-x} Ni _x PO ₄ cathode materials. <i>Journal of Materials Science</i> , 2017, 52, 4886-4893.	1.7	4
89	Development of a high temperature diamond anvil cell for x ray absorption experiments under extreme conditions. <i>Radiation Physics and Chemistry</i> , 2020, 175, 108106.	1.4	4
90	A new internally heated diamond anvil cell system for time-resolved optical and x-ray measurements. <i>Review of Scientific Instruments</i> , 2020, 91, 085114.	0.6	4

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91	Advances in modelling X-ray absorption spectroscopy data using reverse Monte Carlo. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 6988-7000.	1.3	4
92	Evidence for [1s2p]3pshake-up channels in compounds and oxides of third-period elements. <i>Physical Review B</i> , 1996, 53, 15571-15576.	1.1	3
93	Short-range structure of liquid palladium and rhodium at very high temperatures. <i>Journal of Non-Crystalline Solids</i> , 1999, 250-252, 172-176.	1.5	3
94	Development of an experimental set-up for electroresistance measurements of materials under high pressure and temperature. <i>Measurement Science and Technology</i> , 2008, 19, 095701.	1.4	3
95	Multiple-scattering x-ray absorption analysis of quartzlike, rutilelike, and amorphous germanium dioxide. <i>Physical Review B</i> , 2011, 84, .	1.1	3
96	Local symmetry in liquid metals probed by x-ray absorption spectroscopy. <i>Journal of Physics: Conference Series</i> , 2016, 712, 012038.	0.3	3
97	Engineering Porous Silicon Nanowires with Tuneable Electronic Properties. <i>Condensed Matter</i> , 2020, 5, 57.	0.8	3
98	Revisiting the Probing Depths of Soft X-ray Absorption Techniques by Constant Initial State Photoemission Experiments. <i>Springer Proceedings in Physics</i> , 2021, , 85-97.	0.1	3
99	Relativistic Corrections to Phase Shift Calculation in the GNXAS Package. <i>Symmetry</i> , 2021, 13, 1021.	1.1	3
100	Using GNXAS, a multiple-scattering EXAFS analysis, for determination of the Fe-Ni-O angle in {FeNO}7 complexes. <i>Physica B: Condensed Matter</i> , 1995, 208-209, 137-139.	1.3	2
101	Nano-structured Pt embedded in acidic salts of heteropolymolybdate matrices: MS EXAFS study. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 364, 65-69.	0.6	2
102	Semiconductors Under Extreme Conditions. <i>Springer Series in Optical Sciences</i> , 2015, , 187-200.	0.5	2
103	Systematic investigation of relativistic effects in EXAFS data analysis. <i>Physical Review B</i> , 2022, 105, .	1.1	2
104	Advanced XAS Analysis for Investigating Fuel Cell Electrocatalysts. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	1
105	Local atomic order in low Pt-content nanocatalysts investigated <i>in situ</i> by XAS. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012173.	0.3	1
106	Pressure effects on icosahedral short range order in undercooled copper. <i>Solid State Sciences</i> , 2010, 12, 179-182.	1.5	1
107	Structure of liquid In ₂₀ Sn ₈₀ at high temperature: a XAS study. <i>Radiation Physics and Chemistry</i> , 2020, 175, 108089.	1.4	1
108	Local Structure of Ga ₈₅ In ₁₄ Eutectic Alloy and Its Pressure-Temperature Melting Line. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100423.	1.2	1

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109	Local Ordering in Disordered Systems under Extreme Conditions. AIP Conference Proceedings, 2007, , .	0.3	0
110	The structure of liquid metals probed by XAS. EPJ Web of Conferences, 2017, 151, 01001.	0.1	0
111	Structural Properties of Porous Silicon Nanowires: A Combined Characterization by Advanced Spectroscopic Techniques. Springer Proceedings in Physics, 2021, , 191-201.	0.1	0