Aurelio Cabeza

List of Publications by Year
in descending order

86 papers	3,444 citations	117453 34 h-index	149479 56 g-index
87 all docs	87 docs citations	87 times ranked	3038 citing authors

#	Article	IF	Citations
1	Guest Molecule-Responsive Functional Calcium Phosphonate Frameworks for Tuned Proton Conductivity. Journal of the American Chemical Society, 2014, 136, 5731-5739.	6.6	206
2	Complexes Formed between Nitrilotris(methylenephosphonic acid) and M2+ Transition Metals:â€‰ Isostructural Organicâ^’Inorganic Hybrids. Inorganic Chemistry, 2002, 41, 2325-2333.	1.9	190
3	Multifunctional Luminescent and Proton-Conducting Lanthanide Carboxyphosphonate Open-Framework Hybrids Exhibiting Crystalline-to-Amorphous-to-Crystalline Transformations. Chemistry of Materials, 2012, 24, 3780-3792.	3.2	162
4	Structure Determination of a Complex Tubular Uranyl Phenylphosphonate, (UO2)3(HO3PC6H5)2(O3PC6H5)2Â·H2O, from Conventional X-ray Powder Diffraction Data. Inorganic Chemistry, 1996, 35, 1468-1473.	1.9	119
5	High Proton Conductivity in a Flexible, Cross-Linked, Ultramicroporous Magnesium Tetraphosphonate Hybrid Framework. Inorganic Chemistry, 2012, 51, 7689-7698.	1.9	118
6	Crystalchemistry and Oxide Ion Conductivity in the Lanthanum Oxygermanate Apatite Series. Chemistry of Materials, 2003, 15, 2099-2108.	3.2	110
7	High valence transition metal doped strontium ferrites for electrode materials in symmetrical SOFCs. Journal of Power Sources, 2014, 249, 405-413.	4.0	105
8	Insights into the Dynamics of Grotthuss Mechanism in a Proton-Conducting Chiral <i>bio</i>MOF. Chemistry of Materials, 2016, 28, 4608-4615.	3.2	105
9	Deprotonation of Phosphonic Acids with M2+Cations for the Design of Neutral Isostructural Organicâ^’Inorganic Hybrids. Journal of the American Chemical Society, 2001, 123, 2885-2886.	6.6	94
10	Synthesis, Structures, and Thermal Expansion of the La2W2â^’xMoxO9 Series. Journal of Solid State Chemistry, 2002, 167, 80-85.	1.4	85
11	Multifunctional lanthanum tetraphosphonates: Flexible, ultramicroporous and proton-conducting hybrid frameworks. Dalton Transactions, 2012, 41, 4045.	1.6	85
12	Tuning Proton Conductivity in Alkali Metal Phosphonocarboxylates by Cation Size-Induced and Water-Facilitated Proton Transfer Pathways. Chemistry of Materials, 2015, 27, 424-435.	3.2	82
13	New Directions in Metal Phosphonate and Phosphinate Chemistry. Crystals, 2019, 9, 270.	1.0	81
14	Synthesis and crystal structures of two metal phosphonates, M(HO3PC6H5)2(M = Ba, Pb). Journal of Materials Chemistry, 1996, 6, 639.	6.7	80
15	Aluminum Phenylphosphonates:Â A Fertile Family of Compounds. Inorganic Chemistry, 1998, 37, 4168-4178.	1.9	78
16	New lead triphosphonates: synthesis, properties and crystal structures. Journal of Materials Chemistry, 1999, 9, 571-578.	6.7	78
17	Full Phase Analysis of Portland Clinker by Penetrating Synchrotron Powder Diffraction. Analytical Chemistry, 2001, 73, 151-156.	3.2	74
18	Structural and surface study of calcium glyceroxide, an active phase for biodiesel production under heterogeneous catalysis. Journal of Catalysis, 2013, 300, 30-36.	3.1	74

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19	Polymorphism and Phase Transition in Nanotubular Uranyl Phenylphosphonate:Â (UO2)3(HO3PC6H5)2(O3PC6H5)2Â·H2O. Inorganic Chemistry, 1998, 37, 1827-1832.	1.9	63
20	Synthesis and Structure of Na2[(HO3PCH2)3NH]1.5H2O: The First Alkaline Triphosphonate. Journal of Solid State Chemistry, 2000, 151, 122-129.	1.4	60
21	Luminescent and Proton Conducting Lanthanide Coordination Networks Based On a Zwitterionic Tripodal Triphosphonate. Inorganic Chemistry, 2016, 55, 7414-7424.	1.9	57
22	Synthesis and Characterization of a New Bisphosphonic Acid and Several Metal Hybrids Derivatives. Inorganic Chemistry, 2004, 43, 5283-5293.	1.9	54
23	Structure and Electrons in Mayenite Electrides. Inorganic Chemistry, 2008, 47, 2661-2667.	1.9	51
24	Structural complexity and metal coordination flexibility in two acetophosphonates. Journal of Materials Chemistry, 1998, 8, 2479-2485.	6.7	48
25	Synthesis, Structure, and Characterization of Uranium(IV) Phenyl Phosphonate, U(O3PC6H5)2, and Uranium(IV) Pyro Phosphate, UP2O7. Journal of Solid State Chemistry, 1996, 121, 181-189.	1.4	46
26	Structural Variability in Multifunctional Metal Xylenediaminetetraphosphonate Hybrids. Inorganic Chemistry, 2013, 52, 8770-8783.	1.9	46
27	Stepwise Topotactic Transformations (1D to 3D) in Copper Carboxyphosphonate Materials: Structural Correlations. Crystal Growth and Design, 2010, 10, 357-364.	1.4	43
28	Two New Organo-Inorganic Hybrid Compounds: Nitrilophosphonates of Aluminum and Copper. Journal of Solid State Chemistry, 2001, 160, 278-286.	1.4	40
29	â€œBreathingâ€•in Adsorbateâ€Responsive Metal Tetraphosphonate Hybrid Materials. Chemistry - A European Journal, 2009, 15, 6612-6618.	1.7	40
30	Microporous aluminum bisphosphonates. Microporous and Mesoporous Materials, 2006, 88, 293-303.	2.2	39
31	Synthesis and characterization of metal carboxyalkylphosphonates hybridÂmaterials. Solid State Sciences, 2004, 6, 479-487.	1.5	37
32	Structure of stratlingite and effect of hydration methodology on microstructure. Advances in Cement Research, 2016, 28, 13-22.	0.7	35
33	Effect of Preparation Conditions on the Polymorphism and Transport Properties of La_{6â€“<i>x</i>}MoO_{12â^'Î´} (0 â‰ <i>x</i> â‰ 0.8). Chemistry of Materials, 2017, 29, 6966-6975.	3.2	35
34	Layered Lanthanide Sulfophosphonates and Their Proton Conduction Properties in Membrane Electrode Assemblies. Chemistry of Materials, 2019, 31, 9625-9634.	3.2	34
35	Structural Mapping and Framework Interconversions in 1D, 2D, and 3D Divalent Metal <i>R,S</i>-Hydroxyphosphonoacetate Hybrids. Inorganic Chemistry, 2010, 49, 761-768.	1.9	33
36	Common Structural Features in Calcium Hydroxyphosphonoacetates. A High-Throughput Screening. Crystal Growth and Design, 2011, 11, 1713-1722.	1.4	32

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37	Crystal engineering in confined spaces. A novel method to grow crystalline metal phosphonates in alginate gel systems. CrystEngComm, 2012, 14, 5385.	1.3	32
38	Layered microporous tin(iv) bisphosphonates. Dalton Transactions, 2007, , 2394-2404.	1.6	30
39	Colloidal Processing of Macroporous <scp><scp>TiO₂</scp></scp> Materials for Photocatalytic Water Treatment. Journal of the American Ceramic Society, 2012, 95, 502-508.	1.9	29
40	Tailored setting times with high compressive strengths in bassanite calcium sulfoaluminate eco-cements. Cement and Concrete Composites, 2016, 72, 39-47.	4.6	29
41	Layered acid arsenates Î±-M(HAsO4)2Â·H2O (M=Ti, Sn, Pb): synthesis optimization and crystal structures. Journal of Molecular Structure, 1998, 470, 93-104.	1.8	28
42	Layered and pillared metal carboxyethylphosphonate hybrid compounds. Dalton Transactions, 2006, , 577-585.	1.6	26
43	Syntheses, Structures, and Thermal Expansion of Germanium Pyrophosphates. Journal of Solid State Chemistry, 2001, 156, 213-219.	1.4	25
44	Divalent Metal Vinylphosphonate Layered Materials: Compositional Variability, Structural Peculiarities, Dehydration Behavior, and Photoluminescent Properties. Inorganic Chemistry, 2011, 50, 11202-11211.	1.9	25
45	Ab initio powder structure determination and thermal behavior of a new lead(II) phenylphosphonate, Pb(O3PC6H5). Acta Crystallographica Section B: Structural Science, 1996, 52, 982-988.	1.8	24
46	Structure of trihydrated rare-earth acid diphosphates LnHP2O7Â·3H2O (Ln=La, Er). Journal of Solid State Chemistry, 2004, 177, 2129-2137.	1.4	23
47	From non-porous crystalline to amorphous microporous metal(IV) bisphosphonates. Microporous and Mesoporous Materials, 2008, 114, 322-336.	2.2	21
48	Homologous alkyl side-chain diphosphonate inhibitors for the corrosion protection of carbon steels. Chemical Engineering Journal, 2021, 405, 126864.	6.6	21
49	Properties and Applications of Metal Phosphates and Pyrophosphates as Proton Conductors. Materials, 2022, 15, 1292.	1.3	20
50	Synthesis and structural characterization of 2-D layered copper(II) styrylphosphonate coordination polymers. Journal of Coordination Chemistry, 2014, 67, 1562-1572.	0.8	19
51	Proton conductors based on alkaline-earth substituted La28â^'xW4+xO54+3x/2. Dalton Transactions, 2014, 43, 6490.	1.6	19
52	Three-Component Copper-Phosphonate-Auxiliary Ligand Systems: Proton Conductors and Efficient Catalysts in Mild Oxidative Functionalization of Cycloalkanes. Inorganic Chemistry, 2018, 57, 10656-10666.	1.9	19
53	Electrical Behavior of an Inorganic Film from ac and dc Measurements. Journal of Colloid and Interface Science, 1996, 180, 116-121.	5.0	18
54	Synthesis, ab initio structure determination, and characterization of manganese(III) phenyl phosphonates. Materials Research Bulletin, 1998, 33, 1265-1274.	2.7	18

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55	2D Corrugated Magnesium Carboxyphosphonate Materials: Topotactic Transformations and Interlayer â€œDecorationâ€•with Ammonia. Inorganic Chemistry, 2012, 51, 7889-7896.	1.9	18
56	Effective Correction of Peak Asymmetry: Rietveld Refinement of High-Resolution Synchrotron Powder Data of Li1.8(Hf1.2Fe0.8)(PO4)3. Journal of Applied Crystallography, 1998, 31, 16-21.	1.9	17
57	Relationship between the Structure and Transport Properties in the Ce_{1â€“<i>x</i>}La_{<i>x</i>}O_{2â€“<i>x</i>/2} System. Inorganic Chemistry, 2019, 58, 9368-9377.	1.9	17
58	Influence of Proton Conducting Cations on the Structure and Properties of 2D Anilate-Based Magnets. Inorganic Chemistry, 2017, 56, 13865-13877.	1.9	16
59	Current rectification by H3OUO2PO4Â·3H2O (HUP) thin films in electrolyte mediaâ˜†. Solid State Ionics, 1992, 51, 127-131.	1.3	15
60	A comparative study of the electrical behaviour of different uranyl phosphate-based membranes by a.c. and d.c. measurements. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1995, 97, 13-20.	2.3	15
61	Influence of the synthesis method on the structure and electrical properties of Sr1âˆ’K GeO3âˆ’/2. Ceramics International, 2015, 41, 6542-6551.	2.3	15
62	Single-crystal and humidity-controlled powder diffraction study of the breathing effect in a metalâ€“organic framework upon water adsorption/desorption. Chemical Communications, 2016, 52, 7229-7232.	2.2	15
63	High-resolution synchrotron powder diffraction analysis of ordinary Portland cements: Phase coexistence of alite. Nuclear Instruments & Methods in Physics Research B, 2005, 238, 87-91.	0.6	14
64	Photodegradation of Phenol over a Hybrid Organo-Inorganic Material: Iron(II) Hydroxyphosphonoacetate. Journal of Physical Chemistry C, 2012, 116, 14526-14533.	1.5	13
65	From light to heavy alkali metal tetraphosphonates (M = Li, Na, K, Rb, Cs): cation size-induced structural diversity and water-facilitated proton conductivity. CrystEngComm, 2018, 20, 7648-7658.	1.3	13
66	Preparation of photocatalytic TiO2 coatings by gel-dipping with polysaccharides. Ceramics International, 2012, 38, 6531-6540.	2.3	10
67	Structural variability in M²⁺ 2-hydroxyphosphonoacetate moderate proton conductors. Pure and Applied Chemistry, 2017, 89, 75-87.	0.9	10
68	Phosphonate Decomposition-Induced Polyoxomolybdate Dumbbell-Type Cluster Formation: Structural Analysis, Proton Conduction, and Catalytic Sulfoxide Reduction. Inorganic Chemistry, 2019, 58, 11522-11533.	1.9	10
69	NH3/H2O-mediated proton conductivity and photocatalytic behaviour of Fe(ii)-hydroxyphosphonoacetate and M(ii)-substituted derivatives. Dalton Transactions, 2020, 49, 3981-3988.	1.6	9
70	Zinc(<scp>ii</scp>), cobalt(<scp>ii</scp>) and manganese(<scp>ii</scp>) networks with phosphoserine ligand: synthesis, crystal structures and magnetic and proton conductivity properties. Dalton Transactions, 2017, 46, 16570-16579.	1.6	8
71	Mineralogical Characterization and Firing Temperature Delineation on Minoan Pottery, Focusing on the Application of Micro-Raman Spectroscopy. Heritage, 2019, 2, 2652-2664.	0.9	8
72	Structural and proton conductivity studies of fibrous Ï€-Ti₂O(PO₄)₂Â·2H₂O: application in chitosan-based composite membranes. Dalton Transactions, 2021, 50, 7667-7677.	1.6	8

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73	Synthesis and electrochemical properties of metal(<scp>ii</scp>)-carboxyethylphenylphosphinates. Dalton Transactions, 2021, 50, 6539-6548.	1.6	8
74	Quantitative phase analysis of ordinary Portland cements using synchrotron radiation powder diffraction. Zeitschrift FÃ¼r Kristallographie, Supplement, 2006, 2006, 587-592.	0.5	8
75	Exploiting the Multifunctionality of M²⁺/Imidazoleâ€"Etidronates for Proton Conductivity (Zn²⁺) and Electrocatalysis (Co²⁺, Ni²⁺) toward the HER, OER, and ORR. ACS Applied Materials & Interfaces, 2022, 14, 11273-11287.	4.0	8
76	Crystal Packing in Diâ€(Î¼â€OH)â€<i>ortho</i>â€palladated Complexes â€" A DFT Insight into the Molecular Structure and Solidâ€State Interactions. European Journal of Inorganic Chemistry, 2008, 2008, 3687-3697.	1.0	7
77	The Baetican workshops: a starting point to study Terra Sigillata Hispanica. Journal of Archaeological Science, 2014, 45, 26-35.	1.2	7
78	Phase Transformation Dynamics in Sulfate-Loaded Lanthanide Triphosphonates. Proton Conductivity and Application as Fillers in PEMFCs. ACS Applied Materials & Interfaces, 2021, 13, 15279-15291.	4.0	7
79	High-Throughput Synthesis of Pillared-Layered Magnesium Tetraphosphonate Coordination Polymers: Framework Interconversions and Proton Conductivity Studies. Inorganics, 2018, 6, 96.	1.2	4
80	ModificaciÃ³n de una membrana de alÃºmina (ÃŽÂ³-Al2O3): CaracterizaciÃ³n mediante parÃ¡metros electroquÃmicos y espectroscopia de fotoelectrones de rayos X. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2002, 41, 122-125.	0.9	4
81	<scp>G</scp>â€Factor, a Suitable Tool for Characterization of Ancient Ceramics: Application to Monitoring Amphorae Phase Transformations in Firing. Archaeometry, 2015, 57, 110-129.	0.6	3
82	New evidence about the use of serpentinite in the Minoan architecture. A Î¼-Raman based study of the â€œHouse of the High Priestâ€•drain in Knossos. Journal of Archaeological Science: Reports, 2017, 16, 316-321.	0.2	3
83	Terra-cotta figurines from the Roman theatre of Malaga (Spain): An archaeometric study. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 139-148.	0.9	3
84	Current rectification and electrical parameters of NH4UO2PO4Â·3H2O (NUP) films in contact with the generating electrolytes. Solid State Ionics, 1993, 61, 175-178.	1.3	1
85	How to Solve the Problems for the Indexation of Complex Materials Using Laboratory Powder Diffraction: Application to Metal Phosphonates. Materials Science Forum, 1996, 228-231, 165-170.	0.3	1
86	Crystalchemistry and Oxide Ion Conductivity in the Lanthanum Oxygermanate Apatite Series.. ChemInform, 2003, 34, no.	0.1	1