

# Riccardo Vivani

## List of Publications by Year in descending order

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112  
papers

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101543

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119  
docs citations

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times ranked

3928  
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#	ARTICLE	IF	CITATIONS
1	New Synthetic Routes to Hydrotalcite-Like Compounds and Characterisation and Properties of the Obtained Materials. <i>European Journal of Inorganic Chemistry</i> , 1998, 1998, 1439-1446.	2.0	581
2	Layered and pillared metal(IV) phosphates and phosphonates. <i>Advanced Materials</i> , 1996, 8, 291-303.	21.0	391
3	Zirconium Phosphite (3,3',5,5'-Tetramethylbiphenyl)diphosphonate, a Microporous, Layered, Inorganic-Organic Polymer. <i>Angewandte Chemie International Edition in English</i> , 1993, 32, 1357-1359.	4.4	189
4	Preparation and Preliminary Characterization of a Covalently Pillared Zirconium Phosphate-Diphosphonate with Interlayer Microporosity. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 1594-1597.	4.4	119
5	Intercalation and grafting of hydrogen phosphates and phosphonates into synthetic hydrotalcites and a.c.-conductivity of the compounds thereby obtained. <i>Solid State Ionics</i> , 1997, 97, 203-212.	2.7	112
6	New advances in zirconium phosphate and phosphonate chemistry: Structural archetypes. Microporous and Mesoporous Materials, 2008, 107, 58-70.	4.4	106
7	Efficient microwave assisted synthesis of metal-organic framework UiO-66: optimization and scale up. <i>Dalton Transactions</i> , 2015, 44, 14019-14026.	3.3	104
8	The first route to highly stable crystalline microporous zirconium phosphonate metal-organic frameworks. <i>Chemical Communications</i> , 2014, 50, 14831-14834.	4.1	96
9	Recent progress in the synthesis and application of organically modified hydrotalcites. <i>Zeitschrift für Kristallographie</i> , 2009, 224, 273-281.	1.1	89
10	Pillared Derivatives of $\beta$ -Zirconium Phosphate Containing Nonrigid Alkyl Chain Pillars. <i>Journal of the American Chemical Society</i> , 1998, 120, 9291-9295.	13.7	86
11	New Directions in Metal Phosphonate and Phosphinate Chemistry. <i>Crystals</i> , 2019, 9, 270.	2.2	81
12	Proton conductivity of mesoporous zirconium phosphate pyrophosphate. <i>Solid State Ionics</i> , 1999, 125, 91-97.	2.7	76
13	A Layered Mixed Zirconium Phosphate/Phosphonate with Exposed Carboxylic and Phosphonic Groups: X-ray Powder Structure and Proton Conductivity Properties. <i>Inorganic Chemistry</i> , 2014, 53, 13220-13226.	4.0	71
14	Preparation, Characterization, and Structure of Zirconium Fluoride Alkylamino-N,N-bis Methylphosphonates: A New Design for Layered Zirconium Diphosphonates with a Poorly Hindered Interlayer Region. <i>Journal of the American Chemical Society</i> , 2002, 124, 8428-8434.	13.7	68
15	Vibrational Study of Some Layered Structures Based on Titanium and Zirconium Phosphates. <i>Inorganic Chemistry</i> , 2004, 43, 5698-5703.	4.0	68
16	UV-Vis-NIR and micro Raman spectroscopies for the non destructive identification of Cd $_{1-x}$ Zn $_x$ S solid solutions in cadmium yellow pigments. <i>Microchemical Journal</i> , 2016, 124, 856-867.	4.5	68
17	Zinc-aluminum hydrotalcites as precursors of basic catalysts: Preparation, characterization and study of the activation of methanol. <i>Catalysis Today</i> , 2010, 152, 104-109.	4.4	66
18	Synthesis and Crystal Structure from X-ray Powder Diffraction Data of Two Zirconium Diphosphonates Containing Piperazine Groups. <i>Inorganic Chemistry</i> , 2010, 49, 9664-9670.	4.0	60

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19	Advances in the Chemistry of Nanosized Zirconium Phosphates: A New Mild and Quick Route to the Synthesis of Nanocrystals. <i>Inorganic Chemistry</i> , 2011, 50, 11623-11630.	4.0	60
20	Robust Metal-Organic Frameworks Based on Tritopic Phosphonoaromatic Ligands. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 4300-4309.	2.0	59
21	The use of a rigid tritopic phosphonic ligand for the synthesis of a robust honeycomb-like layered zirconium phosphonate framework. <i>Chemical Communications</i> , 2014, 50, 5737-5740.	4.1	54
22	On the Intercalation of the Iodine-Iodide Couple on Layered Double Hydroxides with Different Particle Sizes. <i>Inorganic Chemistry</i> , 2012, 51, 2560-2568.	4.0	52
23	Proton conductivity of zirconium carboxy n-alkyl phosphonates with an 1±-layered structure. <i>Solid State Ionics</i> , 1991, 46, 61-68.	2.7	48
24	Formation of Colloidal Dispersions of Layered 13-Zirconium Phosphate in Water/Acetone Mixtures. <i>Journal of Colloid and Interface Science</i> , 1997, 188, 27-31.	9.4	48
25	Activity and Recyclability of an Iridium-EDTA Water Oxidation Catalyst Immobilized onto Rutile TiO <sub>2</sub> . <i>ACS Catalysis</i> , 2015, 5, 264-271.	11.2	48
26	Layered and pillared zirconium phosphate-phosphonates and their inclusion chemistry. <i>Supramolecular Chemistry</i> , 1995, 6, 29-40.	1.2	47
27	Synthesis, Crystal Structure, and Proton Conductivity of One-Dimensional, Two-Dimensional, and Three-Dimensional Zirconium Phosphonates Based on Glyphosate and Glyphosine. <i>Inorganic Chemistry</i> , 2013, 52, 12131-12139.	4.0	47
28	Intercalation of Dyes in Layered Zirconium Phosphates. 1. Preparation and Spectroscopic Characterization of 1±-Zirconium Phosphate Crystal Violet Compounds. <i>Langmuir</i> , 1997, 13, 7252-7257.	3.5	46
29	Photoluminescence Properties of Zinc Oxide in Paints: A Study of the Effect of Self-Absorption and Passivation. <i>Applied Spectroscopy</i> , 2012, 66, 1233-1241.	2.2	45
30	Microporous Solids Based on Pillared Metal(IV) Phosphates and Phosphonates. <i>Journal of Porous Materials</i> , 1998, 5, 205-220.	2.6	44
31	Ion exchange and intercalation properties of layered double hydroxides towards halide anions. <i>Dalton Transactions</i> , 2014, 43, 11587-11596.	3.3	44
32	Shaping Solid-State Supramolecular Cavities: Chemically Induced Accordionlike Movement of 13-Zirconium Phosphate Containing Polyethylenoxide Pillars. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 3351-3353.	13.8	43
33	Accessing stable zirconium carboxy-aminophosphonate nanosheets as support for highly active Pd nanoparticles. <i>Chemical Communications</i> , 2015, 51, 15990-15993.	4.1	42
34	New Architectures for Zirconium Polyphosphonates with a Tailor-Made Open-Framework Structure. <i>Inorganic Chemistry</i> , 2006, 45, 2388-2390.	4.0	41
35	High Yield Precipitation of Crystalline 1±-Zirconium Phosphate from Oxalic Acid Solutions. <i>Inorganic Chemistry</i> , 2010, 49, 9409-9415.	4.0	41
36	Preparation, Characterization, and Structure of 1±-Zirconium Hydrogen Phosphate Hemihydrate. <i>Journal of Solid State Chemistry</i> , 1994, 113, 289-295.	2.9	39

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37	Au@zirconium-phosphonate nanoparticles as an effective catalytic system for the chemoselective and switchable reduction of nitroarenes. <i>Green Chemistry</i> , 2019, 21, 614-626.	9.0	36
38	Crystal engineering on layered zirconium phosphonates. Crystal structure (from X-ray powder data) and non-covalent interactions on the layered zirconium compound of 4-[bis(phosphonomethyl)amino]butanoic acid. <i>Journal of Materials Chemistry</i> , 2002, 12, 3254-3260.	6.7	35
39	Preparation and characterization of zirconium phosphate phosphonates, $ZrPO_4(H_2PO_4)_{1-x}(RPO_2OH)_x \cdot nH_2O$ , with $\gamma$ -layer structure ( $R = CH_3, C_3H_7, C_6H_{11}$ ). <i>Inorganic Chemistry</i> , 1993, 32, 4600-4604.	4.0	34
40	Zirconimphosphit $\alpha$ -(3,3'-bis(2,5-dimethylbiphenyl)diphosphonat: ein mikropor $\alpha$ ses anorganisch $\alpha$ organisches Polymer mit S $\alpha$ len $\alpha$ Schichtstruktur. <i>Angewandte Chemie</i> , 1993, 105, 1396-1398.	2.0	33
41	Preparation and characterization of zirconium phosphate diphosphonates with the $\beta^3$ -structure: a new class of covalently pillared compounds. <i>Materials Chemistry and Physics</i> , 1993, 35, 187-192.	4.0	33
42	Title is missing!. <i>Journal of Porous Materials</i> , 1999, 6, 299-305.	2.6	33
43	Co-based hydrotalcites as new catalysts for the Fischer $\alpha$ Tropsch synthesis process. <i>Fuel</i> , 2014, 119, 62-69.	6.4	33
44	SOFC direct fuelling with high-methane gases: Optimal strategies for fuel dilution and upgrade to avoid quick degradation. <i>Energy Conversion and Management</i> , 2016, 124, 492-503.	9.2	31
45	Immobilized Palladium Nanoparticles on Zirconium Carboxy-Aminophosphonates Nanosheets as an Efficient Recoverable Heterogeneous Catalyst for Suzuki $\alpha$ Miyaura and Heck Coupling. <i>Catalysts</i> , 2017, 7, 186.	3.5	31
46	Ir- and Ru-doped layered double hydroxides as affordable heterogeneous catalysts for electrochemical water oxidation. <i>Dalton Transactions</i> , 2020, 49, 2468-2476.	3.3	29
47	Preparation and some properties of $\beta^3$ -zirconium phosphate benzenephosphonate. <i>Reactive &amp; Functional Polymers</i> , 1993, 19, 1-12.	0.8	28
48	Preparation and characterization of zirconium phosphonate $\alpha$ azobenzene intercalation compounds. A structural, photophysical and photochemical study. <i>Journal of Materials Chemistry</i> , 2004, 14, 1656-1662.	6.7	27
49	Preparation and some preliminary investigations of ion exchange and intercalation properties of $\beta^3$ -zirconium phosphate phosphite. <i>Reactive &amp; Functional Polymers</i> , 1992, 17, 245-253.	0.8	26
50	Preparation and first characterization of a layered $\beta^3$ -zirconium phosphate derivative containing benzo 15-crown-5 groups covalently attached to inorganic layers. <i>Supramolecular Chemistry</i> , 1996, 7, 129-135.	1.2	25
51	Zirconium Phosphate Chloride Dimethyl Sulfoxide, a Reactive Precursor of a Large Family of Layered Compounds. <i>Inorganic Chemistry</i> , 1997, 36, 3574-3575.	4.0	24
52	First structural determination of layered and pillared organic derivatives of $\beta^3$ -zirconium phosphate by X-ray powder diffraction data. <i>Journal of Molecular Structure</i> , 1998, 470, 81-92.	3.6	24
53	Influence of $\pi$ $\alpha$ $\pi$ Stacking Interactions on the Assembly of Layered Copper Phosphonate Coordination Polymers: Combined Powder Diffraction and Electron Paramagnetic Resonance Study. <i>Crystal Growth and Design</i> , 2012, 12, 2327-2335.	3.0	24
54	Iridium-Doped Nanosized Zn $\alpha$ Al Layered Double Hydroxides as Efficient Water Oxidation Catalysts. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 32736-32745.	8.0	24

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55	Thermoanalytical Study, Phase Transitions, and Dimensional Changes of $\text{Zr}(\text{HPO}_4)_2 \cdot \text{H}_2\text{O}$ Large Crystals. <i>Journal of Solid State Chemistry</i> , 1997, 132, 17-23.	2.9	23
56	Microwave-Assisted Intercalation of 1-Alkanols and 1,2-Alkanediols into $\text{Zr}$ -Zirconium Phosphate. Evidence of Conformational Phase Transitions in the Bimolecular Film of Alkyl Chains. <i>Langmuir</i> , 2002, 18, 1211-1217.	3.5	23
57	Amino-Functionalized Layered Crystalline Zirconium Phosphonates: Synthesis, Crystal Structure, and Spectroscopic Characterization. <i>Inorganic Chemistry</i> , 2016, 55, 6278-6285.	4.0	23
58	UV-Vis-NIR and microRaman spectroscopies for investigating the composition of ternary $\text{CdS} (1-x) \text{Se}_x$ solid solutions employed as artists' pigments. <i>Microchemical Journal</i> , 2016, 125, 279-289.	4.5	23
59	Mechanism of the Topotactic Formation of $\text{Zr}$ -Zirconium Phosphate Covalently Pillared with Diphosphonate Groups. <i>Inorganic Chemistry</i> , 1998, 37, 4672-4676.	4.0	22
60	Investigation on the process of lead white blackening by Raman spectroscopy, XRD and other methods: Study of Cimabue's paintings in Assisi. <i>Vibrational Spectroscopy</i> , 2018, 98, 41-49.	2.2	22
61	Electrochemical and spectroscopic characterisation of barium acid salts of 3,5-disulfophenylphosphonic acid. <i>Journal of Materials Chemistry</i> , 1998, 8, 961-964.	6.7	21
62	New Hybrid Zirconium Aminophosphonates Containing Piperidine and Bipiperidine Groups. <i>Inorganic Chemistry</i> , 2011, 50, 10835-10843.	4.0	19
63	Intercalation of a nitronyl nitroxide radical into layered inorganic hosts.. <i>Inorganica Chimica Acta</i> , 2002, 338, 127-132.	2.4	18
64	Structural homologies in benzylamino-N,N-bis methylphosphonic acid and its layered zirconium derivative. <i>Journal of Solid State Chemistry</i> , 2004, 177, 4013-4022.	2.9	18
65	Small is Beautiful: The Unusual Transformation of Nanocrystalline Layered $\text{Zr}$ -Zirconium Phosphate into a New 3D Structure. <i>Inorganic Chemistry</i> , 2015, 54, 9146-9153.	4.0	18
66	A Ternary $\text{Zn}^{2+} \text{Al}^{3+} \text{Ir}$ Hydrotalcite-Like Compound Exhibiting High Efficiency and Recyclability as a Water Oxidation Catalyst. <i>ChemPlusChem</i> , 2016, 81, 1060-1063.	2.8	18
67	Chitosan composite microparticles: A promising gastroadhesive system for taxifolin. <i>Carbohydrate Polymers</i> , 2019, 218, 343-354.	10.2	18
68	Title is missing!. <i>Journal of Porous Materials</i> , 1998, 5, 221-226.	2.6	17
69	Dimensional reduction in zirconium phosphate; from layers to ribbons to chains. <i>Journal of Materials Chemistry</i> , 2003, 13, 1215-1222.	6.7	17
70	The "Historical Materials BAG": A New Facilitated Access to Synchrotron X-ray Diffraction Analyses for Cultural Heritage Materials at the European Synchrotron Radiation Facility. <i>Molecules</i> , 2022, 27, 1997.	3.8	17
71	Anionic Ligand Exchange on $\text{ZrPO}_4\text{Cl}(\text{dms})$ : Alkoxide and Carboxylate Derivatives. <i>Inorganic Chemistry</i> , 2004, 43, 368-374.	4.0	16
72	Design and synthesis of plasticizing fillers based on zirconium phosphonates for glycerol-free composite starch films. <i>Journal of Materials Chemistry</i> , 2012, 22, 5098.	6.7	16

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73	Derivation of Force Field Parameters, and Force Field and Quantum Mechanical Studies of Layered $\hat{1}\pm$ - and $\hat{1}^3$ -Zirconium Phosphates. <i>Inorganic Chemistry</i> , 1999, 38, 4249-4255.	4.0	15
74	Layered Zirconium Phosphate Chloride Dimethyl Sulfoxide as a Two-Dimensional Exchanger of Anionic Ligands. Part I. Substitution of Chloride with Inorganic Monodentate Ligands. <i>Inorganic Chemistry</i> , 2002, 41, 1913-1919.	4.0	15
75	Effect of iodine intercalation in nanosized layered double hydroxides for the preparation of quasi-solid electrolyte in DSSC devices. <i>Solar Energy</i> , 2014, 107, 692-699.	6.1	15
76	Trace elements in surface sediments from Kongsfjorden, Svalbard: occurrence, sources and bioavailability. <i>International Journal of Environmental Analytical Chemistry</i> , 2017, 97, 401-418.	3.3	15
77	Bioinspired Reactive Interfaces Based on Layered Double Hydroxides-Zn Rich Hydroxyapatite with Antibacterial Activity. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 1361-1373.	5.2	15
78	Preparation of a covalently pillared $\hat{1}\pm$ -zirconium phosphite-diphosphonate with a high degree of interlayer porosity. <i>Microporous and Mesoporous Materials</i> , 1998, 21, 297-304.	4.4	14
79	On the role of non-covalent interactions in the assembly of 3D zirconium methyl- and ethyl-N,N-bis phosphonates. <i>Dalton Transactions</i> , 2013, 42, 9671.	3.3	14
80	D-leucine microparticles as an excipient to improve the aerosolization performances of dry powders for inhalation. <i>European Journal of Pharmaceutical Sciences</i> , 2019, 130, 54-64.	4.0	14
81	Intercalation and Grafting of n-Alkyl Phosphonates into Synthetic Hydroxalicates. <i>Molecular Crystals and Liquid Crystals</i> , 1998, 311, 207-212.	0.3	12
82	Layered and Pillared Zirconium Phosphates with $\hat{1}\pm$ - and $\hat{1}^3$ -Structures. <i>Materials Science Forum</i> , 1994, 152-153, 87-98.	0.3	11
83	Molecular and structural characterization of some violet phosphate pigments for their non-invasive identification in modern paintings. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 173, 439-444.	3.9	11
84	Amino Acid Derivatives of Layered Zirconium Phosphates $\hat{1}\pm$ -Zirconium L-(+)-Serinephosphate and Zirconium L-(+)-Serinephosphate Phosphates. <i>European Journal of Inorganic Chemistry</i> , 1998, 1998, 1447-1452.	2.0	10
85	Metal-Organic Frameworks in Italy: From synthesis and advanced characterization to theoretical modeling and applications. <i>Coordination Chemistry Reviews</i> , 2021, 437, 213861.	18.8	10
86	Modeling and Analysis of the X-ray Powder Diffraction Structure of $\hat{1}^3$ -Zirconium Phosphates Pillared with Butyl Chains through Molecular Dynamics Simulations. <i>Chemistry of Materials</i> , 2002, 14, 295-303.	6.7	9
87	Antibacterial Properties of a Novel Zirconium Phosphate-Glycinediphosphonate Loaded with Either Zinc or Silver. <i>Materials</i> , 2019, 12, 3184.	2.9	9
88	Circular Hazelnut Protection by Lignocellulosic Waste Valorization for Nanopesticides Development. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2604.	2.5	9
89	Investigating the effect of positional isomerism on the assembly of zirconium phosphonates based on tritopic linkers. <i>Dalton Transactions</i> , 2020, 49, 3662-3666.	3.3	8
90	Preparation Of Zirconium Diphosphonate-Phosphites With A Narrow Distribution Of Mesopores.. <i>Materials Research Society Symposia Proceedings</i> , 1991, 233, 101.	0.1	7

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91	Zirconium Organic Diphosphate-Diphosphonates With Tilted Rigid Pillars.. Materials Research Society Symposia Proceedings, 1991, 233, 95.	0.1	7
92	Synchrotron radiation Ca K-edge 2D-XANES spectroscopy for studying the stratigraphic distribution of calcium-based consolidants applied in limestones. Scientific Reports, 2020, 10, 14337.	3.3	6
93	Exploring Taxifolin Polymorphs: Insights on Hydrate and Anhydrous Forms. Pharmaceutics, 2021, 13, 1328.	4.5	6
94	Ion exchange properties of zirconium phosphate phosphite with alkaline earth metal ions.. Solvent Extraction and Ion Exchange, 1990, 8, 713-728.	2.0	5
95	Zirconium Carboxyaminophosphonate Nanosheets as Support for Ag Nanoparticles. Materials, 2019, 12, 3185.	2.9	5
96	Synthesis, Crystal Structure, and Antibacterial Properties of Silver-Functionalized Low-Dimensional Layered Zirconium Phosphonates. Inorganic Chemistry, 2022, 61, 2251-2264.	4.0	5
97	Deeper insights into the photoluminescence properties and (photo)chemical reactivity of cadmium red (CdS1âˆ™xSex) paints in renowned twentieth century paintings by state-of-the-art investigations at multiple length scales. European Physical Journal Plus, 2022, 137, 1.	2.6	5
98	A new challenge for nanocrystalline Î±-zirconium phosphate: reaction with a diepoxyalkane. Dalton Transactions, 2020, 49, 3869-3876.	3.3	3
99	Study of the Intercalation of Tetramethylbenzidine in Layered Zirconium Phosphates to Obtain Pillared Materials. Materials Science Forum, 1992, 91-93, 147-152.	0.3	2
100	Preparation and First Characterisation of a Pillared Î³-Zirconium Phosphate Derivative Containing Dibenzo 18-Crown-6 Groups Covalently Bound to Inorganic Layers. Supramolecular Chemistry, 1998, 9, 99-108.	1.2	2
101	Cyclic dialkylindium amides: new structural information and ultra-purification using inorganic and inorganoâ€œorganic layered materials. Journal of Organometallic Chemistry, 2004, 689, 3000-3004.	1.8	2
102	Vibrational and Electronic Circular Dichroism Study of Chiral Seleno Compounds Prepared from a Naphthol Based Diselenide. European Journal of Organic Chemistry, 2022, 2022, .	2.4	2
103	Layered Tbâ€œDoped Yttrium Carboxyphosphonate Nanocrystals as Efficient Filler for PEDOT:PSS Composite Films. ChemNanoMat, 2017, 3, 575-582.	2.8	1
104	Effect of the Nano-Ca(OH)2 Addition on the Portland Clinker Cooking Efficiency. Materials, 2019, 12, 1787.	2.9	1
105	A Novel Stabilizing Approach to Improve the Manufacturing of Biodegradable Microparticles Entrapping Plasticizing Active Molecules: the Case of 4-Methoxychalcone. Journal of Pharmaceutical Innovation, 2019, 14, 159-175.	2.4	1
106	Multi-Scale Minero-Chemical Analysis of Biomass Ashes: A Key to Evaluating Their Dangers vs. Benefits. Sustainability, 2021, 13, 6052.	3.2	1
107	New Layered and Pillared-Type Compounds, Their Intercalation Chemistry and Applications. , 1996, , 143-157.		1
108	Chapter 2. Zirconium Phosphonates. , 2011, , 45-86.		1

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109	Intercalation and Thermal Decomposition of Urea in Layered Zirconium Phosphates of $\hat{1}\pm$ - and $\hat{1}^3$ -Type. <i>Molecular Crystals and Liquid Crystals</i> , 1998, 311, 251-256.	0.3	0
110	Vibrational Study of Some Layered Structures Based on Titanium and Zirconium Phosphates.. <i>ChemInform</i> , 2004, 35, no.	0.0	0
111	New inorganic-organic solids based on zirconium aminopolyphosphonates. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2006, 62, s270-s270.	0.3	0
112	Exploring Taxifolin Polymorphs: Insights on Hydrate and Anhydrous Forms. <i>Pharmaceutics</i> , 2021, 13, .	4.5	0