

Valery V Petrykin

List of Publications by Year in descending order

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82
papers

2,360
citations

218677

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214800

47
g-index

87
all docs

87
docs citations

87
times ranked

2727
citing authors

#	ARTICLE	IF	CITATIONS
1	Beyond the volcano limitations in electrocatalysis of oxygen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 13682-13688.	2.8	292
2	A Water-Soluble Titanium Complex for the Selective Synthesis of Nanocrystalline Brookite, Rutile, and Anatase by a Hydrothermal Method. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 2378-2381.	13.8	224
3	Structure and Stability of Water Soluble $(\text{NH}_4)_8[\text{Ti}_4(\text{C}_6\text{H}_4\text{O}_7)_4(\text{O}_2)_4] \cdot 8\text{H}_2\text{O}$. <i>Inorganic Chemistry</i> , 2001, 40, 891-894.	4.0	164
4	One-Step Synthesis of $\text{TiO}_2(\text{B})$ Nanoparticles from a Water-Soluble Titanium Complex. <i>Chemistry of Materials</i> , 2007, 19, 5373-5376.	6.7	122
5	The relationship between photocatalytic activity and crystal structure in strontium tantalates. <i>Journal of Catalysis</i> , 2005, 232, 102-107.	6.2	118
6	Application of Water-Soluble Titanium Complexes as Precursors for Synthesis of Titanium-Containing Oxides via Aqueous Solution Processes. <i>Bulletin of the Chemical Society of Japan</i> , 2010, 83, 1285-1308.	3.2	111
7	Chelating of Titanium by Lactic Acid in the Water-Soluble Diammonium Tris(2-hydroxypropionato)titanate(IV). <i>Inorganic Chemistry</i> , 2004, 43, 4546-4548.	4.0	90
8	Local structure of Co doped RuO_2 nanocrystalline electrocatalytic materials for chlorine and oxygen evolution. <i>Catalysis Today</i> , 2013, 202, 63-69.	4.4	73
9	Zn-Doped RuO_2 electrocatalysts for Selective Oxygen Evolution: Relationship between Local Structure and Electrocatalytic Behavior in Chloride Containing Media. <i>Chemistry of Materials</i> , 2011, 23, 200-207.	6.7	62
10	Direct synthesis of brookite-type titanium oxide by hydrothermal method using water-soluble titanium complexes. <i>Journal of Materials Science</i> , 2008, 43, 2158-2162.	3.7	59
11	Selectivity of Nanocrystalline IrO_2 -Based Catalysts in Parallel Chlorine and Oxygen Evolution. <i>Electrocatalysis</i> , 2015, 6, 198-210.	3.0	48
12	Hydrothermal Synthesis and Photocatalytic Activity of Whisker-Like Rutile-Type Titanium Dioxide. <i>Journal of the American Ceramic Society</i> , 2009, 92, S21.	3.8	46
13	Local Structure of Nanocrystalline $\text{Ru}_{1-x}\text{Ni}_x\text{O}_2$ Dioxide and Its Implications for Electrocatalytic Behavior—An XPS and XAS Study. <i>Journal of Physical Chemistry C</i> , 2009, 113, 21657-21666.	3.1	45
14	Synthesis of High-Brightness Sub-micrometer Y_2O_3 Red Phosphor Powders by Complex Homogeneous Precipitation Method. <i>Chemistry of Materials</i> , 2006, 18, 6303-6307.	6.7	44
15	Solvothermal synthesis and electrochemical behavior of nanocrystalline cubic LiTiO_3 oxides with cationic disorder. <i>Solid State Ionics</i> , 2005, 176, 1877-1885.	2.7	40
16	Synthesis and Structure of New Water-Soluble and Stable Tantalum Compound: Ammonium Tetralactatodiperoxo- μ_4 -oxo-ditantalate(V). <i>Inorganic Chemistry</i> , 2006, 45, 9251-9256.	4.0	38
17	Hydrothermal synthesis of brookite-type titanium dioxide with snowflake-like nanostructures using a water-soluble citratoperoxotitanate complex. <i>Journal of Crystal Growth</i> , 2011, 337, 30-37.	1.5	36
18	Introduction of BaSnO_3 and BaZrO_3 artificial pinning centres into 2G HTS wires based on PLD-GdBCO films. Phase I of the industrial R&D programme at SuperOx. <i>Superconductor Science and Technology</i> , 2017, 30, 124001.	3.5	36

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19	Hydrothermal synthesis of TiO ₂ nano-particles using novel water-soluble titanium complexes. Journal of Materials Science, 2008, 43, 2217-2221.	3.7	35
20	A New Water-Soluble Ammonium Citratoperoxotitanate as an Environmentally Beneficial Precursor for TiO ₂ Thin Films and RuO ₂ /BaTi ₄ O ₉ Photocatalysts. Chemistry of Materials, 2002, 14, 2845-2846.	6.7	33
21	Selective Chlorine Evolution Catalysts Based on Mg-Doped Nanoparticulate Ruthenium Dioxide. Journal of the Electrochemical Society, 2015, 162, H23-H31.	2.9	32
22	Hydrothermal synthesis of brookite type TiO ₂ photocatalysts using a water-soluble Ti-complex coordinated by ethylenediaminetetraacetic acid. Journal of the Ceramic Society of Japan, 2009, 117, 320-325.	1.1	31
23	Effect of Sr substitution on irreversibility line, lattice dynamics and formation of Hg,Pb-1223 superconductors. Physica C: Superconductivity and Its Applications, 1998, 305, 57-67.	1.2	30
24	New water-soluble complexes of titanium with amino acids and their application for synthesis of TiO ₂ nanoparticles. Journal of the Ceramic Society of Japan, 2008, 116, 578-583.	1.1	28
25	Rapid synthesis of nitrogen doped titania with mixed crystal lattice via microwave-assisted hydrothermal method. Materials Chemistry and Physics, 2009, 116, 269-272.	4.0	28
26	Structural disorder and superconductivity suppression in NdBa ₂ Cu ₃ O _z (z ^{1/4} 7). Physica C: Superconductivity and Its Applications, 2000, 340, 16-32.	1.2	26
27	Preparation and characterization of citratoperoxotitanate barium compound for BaTiO ₃ synthesis. Solid State Ionics, 2002, 151, 293-297.	2.7	24
28	Morphology Control of Rutile Nanoparticles in a Hydrothermal Synthesis from Water-Soluble Titanium Complex Aqueous Solution. Journal of the Ceramic Society of Japan, 2007, 115, 835-839.	1.1	24
29	Oxygen reduction on nanocrystalline ruthenia – local structure effects. RSC Advances, 2015, 5, 1235-1243.	3.6	24
30	Synthesis of TiO ₂ (B) using glycolato titanium complex and post-synthetic hydrothermal crystal growth of TiO ₂ (B). Journal of Crystal Growth, 2009, 311, 619-622.	1.5	23
31	Direct Synthesis of BaAl ₂ S ₄ :Eu ²⁺ Blue Emission Phosphor by One-Step Sulfurization of Highly Homogeneous Oxide Precursor Prepared via a Solution-Based Method. Chemistry of Materials, 2008, 20, 5128-5130.	6.7	18
32	Hydrothermal Synthesis of Nanosized Titania Photocatalysts Using Novel Water-Soluble Titanium Complexes. Solid State Phenomena, 2007, 124-126, 723-726.	0.3	17
33	Photocatalytic activity of nanocrystalline TiO ₂ (B) synthesized from titanium glycolate complex by hydrothermal method. Journal of the Ceramic Society of Japan, 2009, 117, 347-350.	1.1	17
34	Surface Stability of Pt ₃ Ni Nanoparticulate Alloy Electrocatalysts in Hydrogen Adsorption. Langmuir, 2013, 29, 9046-9050.	3.5	17
35	Microwave-Assisted Hydrothermal Synthesis of Brookite Nanoparticles from a Water-Soluble Titanium Complex and Their Photocatalytic Activity. Journal of the Ceramic Society of Japan, 2007, 115, 826-830.	1.1	15
36	A simple and reproducible way to synthesize PrBa ₂ Cu ₄ O ₈ under 1 atm of oxygen by amorphous citrate method. Physica C: Superconductivity and Its Applications, 1999, 321, 74-80.	1.2	14

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37	Preparation of high performance fibrous titania photocatalysts by the solvothermal reaction of protonated form of tetratitanate. <i>Journal of Molecular Catalysis A</i> , 2009, 309, 50-56.	4.8	14
38	Synthesis of $\text{BaAl}_2\text{S}_4:\text{Eu}^{2+}$ Electroluminescent Material by the Polymerizable Complex Method Combined with CS_2 Sulfurization. <i>Journal of the American Ceramic Society</i> , 2009, 92, S27.	3.8	13
39	Sr_2ZnS_3 : Crystal Structure and Fluorescent Properties of a New Eu(II)-Activated Yellow Emission Phosphor. <i>Chemistry of Materials</i> , 2010, 22, 5800-5802.	6.7	13
40	Methanol-Water System for Solvothermal Synthesis of $\text{YVO}_4:\text{Eu}$ with High Photoluminescent Intensity. <i>Journal of the American Ceramic Society</i> , 2009, 92, S16-S20.	3.8	12
41	Synthesis and effect of Sr substitution on fluorescence of new $\text{Ba}_{2-x}\text{Sr}_x\text{ZnS}_3:\text{Eu}^{2+}$ red phosphor: Considerable enhancement of emission intensity. <i>Journal of Crystal Growth</i> , 2009, 311, 647-650.	1.5	12
42	Insights into a selective synthesis of anatase, rutile, and brookite-type titanium dioxides by a hydrothermal treatment of titanium complexes. <i>Journal of Materials Research</i> , 2014, 29, 90-97.	2.6	12
43	Topologically Sensitive Surface Segregations of Au-Pd Alloys in Electrocatalytic Hydrogen Evolution. <i>ChemElectroChem</i> , 2014, 1, 207-212.	3.4	12
44	Water Soluble $\text{Na}[\text{Nb}(\text{O})_2\text{S}_3] \cdot 2\text{H}_2\text{O}$ as a New Molecular Precursor for Synthesis of Sodium Niobate. <i>Journal of the Ceramic Society of Japan</i> , 2007, 115, 808-812.	1.1	11
45	Synthesis of $\text{K}_3\text{Ta}_3\text{B}_2\text{O}_{12}$ photocatalytic material by aqueous solution-based process using a novel water soluble tantalum complex. <i>Journal of the Ceramic Society of Japan</i> , 2009, 117, 308-312.	1.1	10
46	Local Structure of Pulse Plated Ni Rich Ni-Zn Alloys and Its Effect on the Electrocatalytic Activity in the Hydrogen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2012, 159, D555-D562.	2.9	10
47	Raman spectroscopy as a unique tool for characterizing high- T_c superconducting oxides. <i>Physica C: Superconductivity and Its Applications</i> , 2000, 338, 144-150.	1.2	9
48	Pinning Properties of PLD-Obtained $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}$ Coated Conductors Doped With BaSnO_3 . <i>IEEE Transactions on Applied Superconductivity</i> , 2017, 27, 1-5.	1.7	9
49	Observation of the Epitaxial Satellite Phase in the Superconducting $\text{RuSr}_2\text{Eu}_{1.5}\text{Ce}_{0.5}\text{Cu}_2\text{O}_{10}$ Ceramic Samples. <i>Chemistry of Materials</i> , 2003, 15, 4417-4423.	6.7	8
50	Highly c-oriented $\text{RuSr}_2(\text{Eu}_{1.5}\text{Ce}_{0.5})\text{Cu}_2\text{O}_{10}$ thin film growth by pulsed laser deposition and subsequent post-annealing. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 403, 21-24.	1.2	8
51	Synthesis of $\text{BaAl}_2\text{S}_4:\text{Eu}$ Phosphor Using $\text{BaS}:\text{Eu}$ Precursor Prepared by the Polymerizable Complex Method. <i>Journal of the Ceramic Society of Japan</i> , 2007, 115, 615-618.	1.1	8
52	c-Axis oriented epitaxial $\text{Ru}(\text{Eu}_{1.5}\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{O}_{10}$ thin films grown by flux-mediated solid phase epitaxy. <i>Thin Solid Films</i> , 2005, 486, 79-81.	1.8	7
53	Photocatalytic Properties of $\text{HCa}_2\text{Nb}_3\text{O}_{10}$ Prepared by Polymerizable Complex Method. <i>Journal of the Ceramic Society of Japan</i> , 2007, 115, 511-513.	1.1	7
54	Synthesis of high-purity $(\text{Ca}_x\text{La}_{1.00-x})(\text{Ba}_{1.75-x}\text{La}_{0.25+x})\text{Cu}_3\text{O}_z$ tetragonal superconductor by an aqueous solution technique using citric acid. <i>Physica C: Superconductivity and Its Applications</i> , 2001, 357-360, 260-264.	1.2	6

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55	Synthesis of Ba ₃ Ta ₆ Si ₄ O ₂₆ using Aqueous Solution Processes and Its Photocatalytic Activity. Funtai Oyobi Fummtsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2010, 57, 701-705.	0.2	6
56	Synthesis and luminescence properties of a Cyan-blue thiosilicate-based Phosphor SrSi ₂ S ₅ :Eu ²⁺ . Journal of Information Display, 2010, 11, 135-139.	4.0	6
57	Inkjet Printing Multideposited YBCO on CGO/LMO/MgO/Y ₂ O ₃ /Al ₂ O ₃ /Hastelloy Tape for 2G-Coated Conductors. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	6
58	Microstructures of superconducting joint between GdBa ₂ Cu ₃ O _y -coated conductors via additionally deposited precursor films. Japanese Journal of Applied Physics, 2019, 58, 050913.	1.5	6
59	Raman Study of Compositionally Induced Phase Transitions in Nd _{1-x} Ba _{2-x} Cu ₃ O _z Solid Solutions. Key Engineering Materials, 1997, 132-136, 1285-1288.	0.4	5
60	Preparation of YVO ₄ :Eu ³⁺ Phosphors via Micro-Gel Spray Freeze-Drying Process. Journal of the Ceramic Society of Japan, 2007, 115, 920-924.	1.1	5
61	Selective Synthesis of TiO ₂ Polymorphs by Hydrothermal Method using New Water-Soluble Titanium Complexes. Funtai Oyobi Fummtsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2009, 56, 188-193.	0.2	5
62	Synthesis of SrGa ₂ S ₄ :Mn,Ce and SrGa ₂ S ₄ :Mn,La phosphors by sulfurization of oxide precursors prepared by an amorphous metal complex method and a micro-gel freezing drying process. Journal of the Ceramic Society of Japan, 2009, 117, 377-380.	1.1	5
63	Raman active modes in Nd ₂ BaCu ₃ O _z compound. Physica C: Superconductivity and Its Applications, 2000, 338, 151-156.	1.2	4
64	The influence of BaSnO ₃ artificial pinning centres on the resistive transition of 2G high-temperature superconductor wire in magnetic field. Superconductor Science and Technology, 2020, 33, 045003.	3.5	4
65	Photocatalytic Conversion of NO on AgCl/Al ₂ O ₃ Mixed with ZSM-5. Journal of the Ceramic Society of Japan, 2005, 113, 509-512.	1.3	3
66	Synthesis of nanocrystalline YVO ₄ :Eu red emission phosphor with high fluorescence intensity by hydrothermal method using original vanadium-peroxo-citrate complex. Journal of the Ceramic Society of Japan, 2009, 117, 273-276.	1.1	3
67	Studies of the La _{1-x} Ba _{2x} Cu ₃ O _z prepared from highly homogeneous precursors. Applied Superconductivity, 1997, 5, 47-52.	0.5	2
68	Synthesis of (CaxLa _{1.00-x})(Ba _{1.75-x} La _{0.25+x})Cu ₃ O _z tetragonal superconductor by amorphous metal complex method. Solid State Ionics, 2002, 151, 299-304.	2.7	2
69	Synthesis of high-purity YbBa ₂ Cu ₃ O _{7-d} and LuBa ₂ Cu ₃ O _{7-d} superconductors by polymerizable complex method. Journal of the Ceramic Society of Japan, 2012, 120, 503-508.	1.1	2
70	Influence of joint pressure on superconducting and mechanical properties for jointed GdBa ₂ Cu ₃ O _y coated conductors via precursor films. Japanese Journal of Applied Physics, 2019, 58, 050907.	1.5	2
71	Observation of Local Crystal Structure Change in (CaxLa _{1-x})(Ba _{1.75-x} La _{0.25+x})Cu ₃ O _{7+Δ} . Tetragonal Superconductor Using Raman Scattering. Funtai Oyobi Fummtsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2002, 49, 372-376.	0.2	1
72	Flux-assisted reactive solid phase epitaxy of highly c-axis oriented Ru(Eu _{1.5} Ce _{0.5})Sr ₂ Cu ₂ O ₁₀ thin films. Physica C: Superconductivity and Its Applications, 2005, 422, 46-50.	1.2	1

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73	Effect of propylene glycol-water ratio on morphology of Y2O2S particles prepared by complex homogeneous precipitation method. Journal of the Ceramic Society of Japan, 2008, 116, 454-458.	1.1	1
74	Preparation of Eu ²⁺ and Ce ³⁺ -co-activated phosphors with optimal composition in (Ba,Sr) ₂ ZnS ₃ solid solution series by polymerizable complex method. IOP Conference Series: Materials Science and Engineering, 2009, 1, 012025.	0.6	1
75	Photocatalytic Patterning using Nano-Colloidal Anatase in Aqueous Solution Process. Transactions of the Materials Research Society of Japan, 2009, 34, 279-281.	0.2	1
76	Synthesis of Y2O3:Eu phosphor with various particles morphologies by solvothermal reaction in methanol-water system. Journal of the Ceramic Society of Japan, 2011, 119, 445-450.	1.1	1
77	Spark-Discharge Plasma as a Method to Produce Low AC Loss Multifilamentary (RE)Ba ₂ Cu ₃ O ₇ Coated Conductors. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	1
78	Chemistry and Applications of Polymeric Gel Precursors. , 2017, , 1-32.		1
79	Synthesis and Characterization of (Ca _x La _{1-x})(Ba _{1.75-x} La _{0.25+x})Cu ₃ O ₇ +.DELTA. Tetragonal Superconductor by an Aqueous Solution Technique Using Citric Acid.. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2001, 48, 1147-1151.	0.2	0
80	The Effect of Varying Ca-Content on the Structure of High-T _c Superconductor (Ca _x La _{1-x})(Ba _{1.75-x} La _{0.25+x})Cu ₃ O ₇ (x = 0.5, 0.6, and 0.8) Studied by Neutron Powder Diffraction. Materials Science Forum, 2004, 443-444, 361-364.	0.3	0
81	Synthesis of Multicomponent Sulfide Phosphors from Uniform Precursors Prepared by Solution Methods. ECS Transactions, 2009, 25, 51-54.	0.5	0
82	Chemistry and Applications of Polymeric Gel Precursors. , 2018, , 81-112.		0