Vladimir G Petrov

List of Publications by Year
in descending order

70 papers	917 citations	516215 16 h-index	525886 27 g-index
70 all docs	70 docs citations	70 times ranked	1080 citing authors

#	Article	IF	Citations
1	XPS study of ion irradiated and unirradiated CeO2 bulk and thin film samples. Applied Surface Science, 2018, 448, 154-162.	3.1	153
2	The electronic structure and the nature of the chemical bond in CeO₂. Physical Chemistry Chemical Physics, 2018, 20, 16167-16175.	1.3	45
3	Solvent extraction systems for mutual separation of Am(III) and Cm(III) from nitric acid solutions. A review of recent state-of-the-art. Solvent Extraction and Ion Exchange, 2021, 39, 679-713.	0.8	44
4	A first phosphine oxide-based extractant with high Am/Cm selectivity. Dalton Transactions, 2019, 48, 2554-2559.	1.6	42
5	Î³-Ray-Induced Degradation in the Triple-Cation Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 813-818.	2.1	38
6	XPS study of the surface chemistry of UO 2 (111) single crystal film. Applied Surface Science, 2018, 433, 582-588.	3.1	35
7	Unravelling the Material Composition Effects on the Gamma Ray Stability of Lead Halide Perovskite Solar Cells: MAPbI₃ Breaks the Records. Journal of Physical Chemistry Letters, 2020, 11, 2630-2636.	2.1	35
8	The impact of alicyclic substituents on the extraction ability of new family of 1,10-phenanthroline-2,9-diamides. RSC Advances, 2020, 10, 26022-26033.	1.7	34
9	Extraction of actinides with heterocyclic dicarboxamides. Journal of Radioanalytical and Nuclear Chemistry, 2018, 316, 419-428.	0.7	31
10	Electronic structure and chemical bonding in PuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 87, .	1.1	30
11	Cs+ sorption onto Kutch clays: Influence of competing ions. Applied Clay Science, 2018, 166, 88-93.	2.6	28
12	Sorption of Eu(III) on quartz at high salt concentrations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 578, 123610.	2.3	23
13	Way to Enforce Selectivity via Steric Hindrance: Improvement of Am(III)/Eu(III) Solvent Extraction by Loaded Diphosphonic Acid Esters. Inorganic Chemistry, 2021, 60, 14563-14581.	1.9	22
14	X-ray photoelectron spectra structure and chemical bond nature in NpO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 89, .	1.1	20
15	2-Methylpyrrolidine derived 1,10-phenanthroline-2,9-diamides: promising extractants for Am(<scp>iii</scp>)/Ln(<scp>iii</scp>) separation. Inorganic Chemistry Frontiers, 2022, 9, 4402-4412.	3.0	20
16	Structural Insight into Complexation Ability and Coordination of Uranyl Nitrate by 1,10-Phenanthroline-2,9-diamides. Inorganic Chemistry, 2022, 61, 384-398.	1.9	19
17	Solubility and hydrolysis of Np(V) in dilute to concentrated alkaline NaCl solutions: formation of Naâ€"Np(V)â€"OH solid phases at 22â€‰Â°C. Radiochimica Acta, 2017, 105, 1-20.	0.5	18
18	Impressive Radiation Stability of Organic Solar Cells Based on Fullerene Derivatives and Carbazole-Containing Conjugated Polymers. ACS Applied Materials & Interfaces, 2019, 11, 21741-21748.	4.0	18

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19	Radionuclide removal from aqueous solutions using potassium ferrate(VI). Journal of Radioanalytical and Nuclear Chemistry, 2016, 310, 347-352.	0.7	16
20	An(III)/Ln(III) solvent extraction: Theoretical and experimental investigation of the role of ligand conformational mobility. Journal of Molecular Liquids, 2021, 325, 115098.	2.3	16
21	Solvent Extraction Systems for Separation of An(III) and Ln(III): Overview of Static and Dynamic Tests. Moscow University Chemistry Bulletin, 2021, 76, 287-315.	0.2	16
22	Testing a simple approach for theoretical evaluation of radiolysis products in extraction systems. A case ofÂN,O-donor ligands for Am/Eu separation. RSC Advances, 2017, 7, 55441-55449.	1.7	14
23	Solid solutions of monazites and xenotimes of lanthanides and plutonium: Atomistic model of crystal structures, point defects and mixing properties. Computational Materials Science, 2019, 157, 43-50.	1.4	11
24	First Trifluoromethylated Phenanthrolinediamides: Synthesis, Structure, Stereodynamics and Complexation with Ln(III). Molecules, 2022, 27, 3114.	1.7	11
25	The effect of fission-energy Xe ion irradiation on dissolution of UO2 thin films. Journal of Alloys and Compounds, 2017, 721, 586-592.	2.8	10
26	X-ray photoelectron spectra structure and chemical bonding in AmO2. Nuclear Technology and Radiation Protection, 2015, 30, 83-98.	0.3	10
27	Sorption of radionuclides on the rocks of the exocontact zone of Nizhnekansky granitoid massif. MRS Advances, 2016, 1, 4061-4067.	0.5	7
28	Solvent extraction of rare earth elements by tri-n-butyl phosphate and tri-iso-amyl phosphate in the presence of Ca(NO3)2. Hydrometallurgy, 2018, 175, 218-223.	1.8	7
29	Unfolding the complexation and extraction of Am³⁺ and Eu³⁺ using N-heterocyclic aromatic diphosphonic acids: a combined experimental and DFT study. Dalton Transactions, 2019, 48, 16279-16288.	1.6	7
30	Chemical alteration of 238Pu-loaded borosilicate glass under saturated leaching conditions. Radiochimica Acta, 2019, 108, 19-27.	0.5	7
31	Preferential sorption of radionuclides on different mineral phases typical for host rocks at the site of the future Russian high level waste repository. Applied Geochemistry, 2019, 100, 90-95.	1.4	7
32	A search of a quantitative quantum-chemical approach for radiolytic stability prediction. Physical Chemistry Chemical Physics, 2020, 22, 14992-14997.	1.3	7
33	Adsorption of Strontium onto Synthetic Iron(III) Oxide up to High Ionic Strength Systems. Minerals (Basel, Switzerland), 2021, 11, 1093.	0.8	7
34	Pyridine-di-phosphonates as chelators for trivalent f-elements: kinetics, thermodynamic and interfacial study of Am(<scp>iii</scp>)/Eu(<scp>iii</scp>) solvent extraction. Dalton Transactions, 2022, 51, 11180-11192.	1.6	7
35	Laser-induced fluorescence of uranyl complexes in aqueous solutions: the role of diffusion-controlled excited states annihilation. Optics Express, 2013, 21, 20517.	1.7	6
36	Sorption of Eu (III) onto Nano-Sized H-Titanates of Different Structures. Applied Sciences (Switzerland), 2019, 9, 697.	1.3	6

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37	Effect of solution acidity on the structure of amino acid-bearing uranyl compounds. Radiochimica Acta, 2019, 107, 311-325.	0.5	6
38	Structural peculiarities of aged 238Pu-doped monazite. MRS Advances, 2016, 1, 4275-4281.	0.5	5
39	Interaction of plutonium with iron- and chromium-containing precipitates under the conditions of reservoir bed for liquid radioactive waste. Radiochemistry, 2016, 58, 662-667.	0.2	5
40	A New Method for Removing and Binding Th(IV) and Other Radionuclides by In Situ Formation of a Sorbent Based on Fibrous Cerium(IV) Hydrogen Phosphate in Liquid Media. Radiochemistry, 2018, 60, 613-617.	0.2	5
41	Simple Automatized Tool for Exchangeâ€“Correlation Functional Fitting. Journal of Physical Chemistry A, 2020, 124, 2700-2707.	1.1	5
42	Electronic Structure and Nature of Chemical Bonds in BkO2. Russian Journal of Physical Chemistry A, 2021, 95, 1169-1176.	0.1	5
43	Sorption characteristics of rocks in the Yenisei site of Nizhnekansky granitoid massif. Gornyi Zhurnal, 2015, , 84-88.	0.0	5
44	Perspective Compounds for Immobilization of Spent Electrolyte from Pyrochemical Processing of Spent Nuclear Fuel. Applied Sciences (Switzerland), 2021, 11, 11180.	1.3	5
45	Liquidâ€“Liquid Equilibria in Multicomponent Systems Containing <i>o</i>-Xylene, Di-(2-ethylhexyl)phosphoric Acid, Water, Nitric Acid, and Europium (Gadolinium, Dysprosium) Nitrate at 298.15 K. Journal of Chemical & Engineering Data, 2017, 62, 4337-4343.	1.0	4
46	The nature of the chemical bond in UO 2. International Journal of Quantum Chemistry, 2019, 119, e26040.	1.0	4
47	Digital Radiography for Evaluating the Relative Efficiency of Radionuclide Sorption onto Various Rock Minerals. Radiochemistry, 2019, 61, 37-43.	0.2	4
48	Solvent Extraction of Didymium by TBP, Aliquat 336 and HDEHP in The Presence of Ca(NO3)2. Applied Sciences (Switzerland), 2020, 10, 2032.	1.3	4
49	Structure of the XPS Spectra of a ThO2 Crystal Film. Radiochemistry, 2022, 64, 133-142.	0.2	4
50	The radionuclide distribution onto different mineral phases of the rocks of the exocontact zone of Nizhnekansky granitoid massif. Perspectives in Science, 2019, 12, 100406.	0.6	3
51	Natural Clay Minerals as a Starting Material for Matrices for the Immobilization of Radioactive Waste from Pyrochemical Processing of SNF. Sustainability, 2021, 13, 10780.	1.6	3
52	Solubility and phase transformations of Np(V) hydroxide in solutions with different ionic strengths. Moscow University Chemistry Bulletin, 2011, 66, 107-115.	0.2	2
53	Nature of chemical bond in AmO2. Radiochemistry, 2015, 57, 565-574.	0.2	2
54	Forms of Uranium Presence in Soil on the Territory of the Sublimate Shop at AEKhK AO. Radiochemistry, 2021, 63, 119-126.	0.2	2

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55	The Valence XPS Structure and the Nature of Chemical Bond in CmO2. Radiochemistry, 2021, 63, 401-412.	0.2	2
56	Electronic structure and chemical bond nature in Cs2NpO2Cl4. Nuclear Technology and Radiation Protection, 2017, 32, 1-9.	0.3	2
57	Production of medical radioisotope 167Tm by photonuclear reactions on natural ytterbium. Nuclear Instruments & Methods in Physics Research B, 2021, 508, 19-23.	0.6	2
58	ELECTRONIC STRUCTURE OF DIOXIDE CfO2. Journal of Structural Chemistry, 2021, 62, 1846-1856.	0.3	2
59	Oxidation studies of UM3 (MÂ=ÂRu, Rh, Pd) intermetallides. Journal of Nuclear Materials, 2022, 568, 153885.	1.3	2
60	Neptunium interaction with uranium dioxide in aqueous solution. Journal of Nuclear Materials, 2007, 362, 426-430.	1.3	1
61	Chemical Stability and Structural Characteristics of Cement Compounds with Radwaste Simulators after Ionizing Radiation Exposure. Atomic Energy, 2020, 127, 362-366.	0.1	1
62	Volume oxidation of uranium mononitride and uranium monocarbide in the dry NO_X-gaseous atmosphere. Radiochimica Acta, 2020, 108, 535-542.	0.5	1
63	X-ray Photoelectron Spectroscopy of Selenates La2O2SeO4 and Pr2O2SeO4. Russian Journal of Inorganic Chemistry, 2021, 66, 525-531.	0.3	1
64	Electronic structure and chemical bond nature in Cs2PuO2Cl4. Nuclear Technology and Radiation Protection, 2015, 30, 99-112.	0.3	1
65	Valence XPS structure and chemical bond in Cs2UO2Cl4. Nuclear Technology and Radiation Protection, 2016, 31, 37-50.	0.3	1
66	Simultaneous separation of actinides and technetium from large volumes of natural water for their determination. Journal of Radioanalytical and Nuclear Chemistry, 2022, 331, 2037-2044.	0.7	1
67	Interaction of neptunium and technetium with UO2+x. Radiochemistry, 2007, 49, 409-414.	0.2	0
68	A Comparative Analysis of Optical Methods for Detection and Prediction of Radionuclides Migration in the Geosphere. Springer Geology, 2018, , 289-297.	0.2	0
69	PyRad : A software shell for simulating radiolysis with Qball package. Journal of Computational Chemistry, 2021, 42, 944-950.	1.5	0
70	Exploring the radiation stability of perovskite solar cells. , 0, , .		0