Sue B Clark

List of Publications by Year
in descending order

133 papers	3,103 citations	172457 29 h-index	197818 49 g-index
137 all docs	137 docs citations	137 times ranked	2921 citing authors

#	Article	IF	Citations
1	Colloid Transport of Plutonium in the Far-Field of the Mayak Production Association, Russia. Science, 2006, 314, 638-641.	12.6	395
2	Review of the Scientific Understanding of Radioactive Waste at the U.S. DOE Hanford Site. Environmental Science & Technology, 2018, 52, 381-396.	10.0	130
3	A multiple approach to the determination of radon fluxes from sediments. Journal of Radioanalytical and Nuclear Chemistry, 1998, 236, 247-253.	1.5	121
4	Predicting the relative toxicity of metal ions using ion characteristics: MicrotoxÂ® bioluminescence assay. Environmental Toxicology and Chemistry, 1996, 15, 1730-1737.	4.3	115
5	Radon tracing of groundwater input into Par Pond, Savannah River Site. Journal of Hydrology, 1997, 203, 209-227.	5.4	114
6	The Gibbs free energies and enthalpies of formation of U (super 6+) phases; an empirical method of prediction. American Mineralogist, 1999, 84, 650-664.	1.9	101
7	Size and Morphology Controlled Synthesis of Boehmite Nanoplates and Crystal Growth Mechanisms. Crystal Growth and Design, 2018, 18, 3596-3606.	3.0	82
8	Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. ACS Applied Nano Materials, 2018, 1, 7115-7128.	5.0	79
9	Humic and Fulvic Acids and Organic Colloidal Materials in the Environment. ACS Symposium Series, 1996, , 2-16.	0.5	62
10	Nickel Adsorption to Hydrous Ferric Oxide in the Presence of EDTA: Effects of Component Addition Sequence. Environmental Science & Technology, 1994, 28, 2353-2359.	10.0	60
11	The Transformation of Uranyl Oxide Hydrates:â€‰ The Effect of Dehydration on Synthetic Metaschoepite and Its Alteration to Becquerelite. Environmental Science & Technology, 1999, 33, 3552-3557.	10.0	59
12	The kinetic interactions of metal ions with humic acids. Marine Chemistry, 1991, 36, 27-38.	2.3	56
13	Lactonization and Protonation of Gluconic Acid: A Thermodynamic and Kinetic Study by Potentiometry, NMR and ESI-MS. Journal of Solution Chemistry, 2007, 36, 1187-1200.	1.2	56
14	A cryogenic fluorescence spectroscopic study of uranyl carbonate, phosphate and oxyhydroxide minerals. Radiochimica Acta, 2008, 96, 591-598.	1.2	51
15	Neptunium(V) Partitioning to Uranium(VI) Oxide and Peroxide Solids. Environmental Science & Technology, 2005, 39, 4117-4124.	10.0	49
16	Fast Synthesis of Gibbsite Nanoplates and Process Optimization using Box-Behnken Experimental Design. Crystal Growth and Design, 2017, 17, 6801-6808.	3.0	47
17	Oligomerization of chromium(iii) and its impact on the oxidation of chromium(iii) by hydrogen peroxide in alkaline solutions. Dalton Transactions RSC, 2002, , 267.	2.3	42
18	Cr(III) Adsorption by Cluster Formation on Boehmite Nanoplates in Highly Alkaline Solution. Environmental Science & Technology, 2019, 53, 11043-11055.	10.0	42

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19	Transitions in Al Coordination during Gibbsite Crystallization Using High-Field ²⁷Al and ²³Na MAS NMR Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 27555-27562.	3.1	41
20	Chromium(III) Hydroxide Solubility in The Aqueous Na+-OH?-H2PO?4-HPO2?4-PO3?4-H2O System: A Thermodynamic Model. Journal of Solution Chemistry, 2004, 33, 1213-1242.	1.2	39
21	Complexation of Uranium(VI) by Gluconate in Acidic Solutions: a Thermodynamic Study with Structural Analysis. Inorganic Chemistry, 2009, 48, 3814-3824.	4.0	38
22	Multivariate Analysis To Quantify Species in the Presence of Direct Interferents: Micro-Raman Analysis of HNO₃ in Microfluidic Devices. Analytical Chemistry, 2018, 90, 2548-2554.	6.5	36
23	Title is missing!. Journal of Radioanalytical and Nuclear Chemistry, 2001, 248, 517-524.	1.5	34
24	Ab Initio Molecular Dynamics Reveal Spectroscopic Siblings and Ion Pairing as New Challenges for Elucidating Prenucleation Aluminum Speciation. Journal of Physical Chemistry B, 2018, 122, 7394-7402.	2.6	34
25	Micro-Raman Technology to Interrogate Two-Phase Extraction on a Microfluidic Device. Analytical Chemistry, 2018, 90, 8345-8353.	6.5	34
26	Microscale characterization of uranium(VI) silicate solids and associated neptunium(V). Radiochimica Acta, 2005, 93, .	1.2	33
27	Failure of ESI Spectra to Represent Metal-Complex Solution Composition: A Study of Lanthanideâ€“Carboxylate Complexes. Analytical Chemistry, 2014, 86, 1023-1029.	6.5	33
28	In Situ ²⁷Al NMR Spectroscopy of Aluminate in Sodium Hydroxide Solutions above and below Saturation with Respect to Gibbsite. Inorganic Chemistry, 2018, 57, 11864-11873.	4.0	33
29	Structure and Dynamics of NaCl Ion Pairing in Solutions of Water and Methanol. Journal of Physical Chemistry B, 2015, 119, 15652-15661.	2.6	31
30	Unraveling Gibbsite Transformation Pathways into LiAl-LDH in Concentrated Lithium Hydroxide. Inorganic Chemistry, 2019, 58, 12385-12394.	4.0	29
31	Title is missing!. Journal of Solution Chemistry, 2002, 31, 343-367.	1.2	28
32	Plutonium Partitioning to Colloidal and Particulate Matter in an Acidic, Sandy Sediment:Â Implications for Remediation Alternatives and Plutonium Migration. Environmental Science & Technology, 2001, 35, 2295-2300.	10.0	27
33	The effect of sample matrix quenching on the measurement of trace uranium concentrations in aqueous solutions using kinetic phosphorimetry. Journal of Radioanalytical and Nuclear Chemistry, 1998, 234, 257-260.	1.5	25
34	Neptunium redox behavior and sorption onto goethite and hematite in the presence of humic acids with different hydroquinone content. Journal of Alloys and Compounds, 2007, 444-445, 491-494.	5.5	24
35	Integrated Computational and Experimental Protocol for Understanding Rh(III) Speciation in Hydrochloric and Nitric Acid Solutions. Inorganic Chemistry, 2014, 53, 12315-12322.	4.0	23
36	¹³⁷Cs Activities and ¹³⁵Cs/¹³⁷Cs Isotopic Ratios from Soils at Idaho National Laboratory: A Case Study for Contaminant Source Attribution in the Vicinity of Nuclear Facilities. Environmental Science & Technology, 2015, 49, 2741-2748.	10.0	23

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37	Surface Hydration and Hydroxyl Configurations of Gibbsite and Boehmite Nanoplates. Journal of Physical Chemistry C, 2020, 124, 5275-5285.	3.1	21
38	Cesium and Strontium Incorporation into Uranophane, Ca[(UO₂)(SiO₃OH)]₂.5H₂O. Journal of Nuclear Science and Technology, 2002, 39, 504-507.	1.3	20
39	Activities of Pu and Am Isotopes and Isotopic Ratios in a Soil Contaminated by Weapons-Grade Plutonium. Environmental Science & Technology, 2005, 39, 5512-5516.	10.0	20
40	Complexation of gluconic acid with Nd(III) in acidic solutions: A thermodynamic study. Journal of Alloys and Compounds, 2007, 444-445, 470-476.	5.5	20
41	Complexation of thorium(iv) with acetate at variable temperatures. Dalton Transactions, 2004, , 2867.	3.3	19
42	Significance of the Nuclear Fuel Cycle in the 21stCentury. ACS Symposium Series, 2006, , 3-20.	0.5	19
43	Transformation of Gibbsite to Boehmite in Caustic Aqueous Solution at Hydrothermal Conditions. Crystal Growth and Design, 2019, 19, 5557-5567.	3.0	19
44	Ionâ€“ion interactions enhance aluminum solubility in alkaline suspensions of nano-gibbsite (Î±-Al(OH)₃) with sodium nitrite/nitrate. Physical Chemistry Chemical Physics, 2020, 22, 4368-4378.	2.8	19
45	Separation and determination of radiostrontium in calcium carbonate matrices of biological origin. Journal of Radioanalytical and Nuclear Chemistry, 1995, 194, 297-302.	1.5	18
46	Preconcentration of f-Elements from Aqueous Solution Utilizing a Modified Carbon Paste Electrode. Analytical Chemistry, 2011, 83, 1388-1393.	6.5	18
47	Electroanalytical chemistry of lanthanides and actinides. Reviews in Analytical Chemistry, 2013, 32, .	3.2	18
48	Correlating inter-particle forces and particle shape to shear-induced aggregation/fragmentation and rheology for dilute anisotropic particle suspensions: A complementary study via capillary rheometry and in-situ small and ultra-small angle X-ray scattering. Journal of Colloid and Interface Science, 2020, 576, 47-58.	9.4	18
49	The role of surface hydroxyls on the radiolysis of gibbsite and boehmite nanoplatelets. Journal of Hazardous Materials, 2020, 398, 122853.	12.4	18
50	A method to predict free energies of formation of mineral phases in the U(VI)â€“SiO2â€“H2O system. Journal of Alloys and Compounds, 1998, 271-273, 189-193.	5.5	16
51	Distribution and geochemical association of actinides in a contaminated soil as a function of grain size. Radiochimica Acta, 2004, 92, .	1.2	16
52	Evidence that Bacterial ABC-Type Transporter Imports Free EDTA for Metabolism. Journal of Bacteriology, 2007, 189, 7991-7997.	2.2	16
53	Environmental Availability of Uranium in an Acidic Plume at the Savannah River Site. Vadose Zone Journal, 2007, 6, 354-362.	2.2	16
54	Electrochemistry and Spectroelectrochemistry of Luminescent Europium Complexes. Electroanalysis, 2016, 28, 2109-2117.	2.9	16

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55	Chromatographic Separation and Characterization of Hydrolyzed Cr(III) Species. Analytical Chemistry, 2002, 74, 2977-2984.	6.5	15
56	The effect of ionizing radiation on uranophane. American Mineralogist, 2003, 88, 159-166.	1.9	15
57	²⁷Al Pulsed Field Gradient, Diffusionâ€"NMR Spectroscopy of Solvation Dynamics and Ion Pairing in Alkaline Aluminate Solutions. Journal of Physical Chemistry B, 2018, 122, 10907-10912.	2.6	15
58	Crystallization and Phase Transformations of Aluminum (Oxy)hydroxide Polymorphs in Caustic Aqueous Solution. Inorganic Chemistry, 2021, 60, 9820-9832.	4.0	15
59	Dehydration of synthetic autunite hydrates. Radiochimica Acta, 2000, 88, .	1.2	14
60	Protonation of D-gluconate and its complexation with Np(V) in acidic to nearly neutral solutions. Radiochimica Acta, 2006, 94, .	1.2	14
61	Preconcentration of Trivalent Lanthanide Elements on a Mercury Film from Aqueous Solution Using Rotating Disk Electrode Voltammetry. Analytical Chemistry, 2010, 82, 5663-5668.	6.5	14
62	Synthesis and characterization of 1:1 layered uranyl silicate mineral phases. Chemical Geology, 2010, 274, 149-157.	3.3	14
63	ITP of lanthanides in microfluidic PMMA chip. Electrophoresis, 2014, 35, 646-653.	2.4	14
64	Resolving local configurational contributions to X-ray and neutron radial distribution functions within solutions of concentrated electrolytes â€" a case study of concentrated NaOH. Physical Chemistry Chemical Physics, 2019, 21, 6828-6838.	2.8	14
65	Structural and Thermodynamic Properties of the Cm^{III} Ion Solvated by Water and Methanol. Inorganic Chemistry, 2016, 55, 4992-4999.	4.0	13
66	Determination of isotopic thorium in biological samples by combined alpha-spectrometry and neutron activation analysis. Journal of Radioanalytical and Nuclear Chemistry, 1998, 234, 201-208.	1.5	12
67	Flow-through Sequential Extraction Approach Developed from a Batch Extraction Method. Environmental Science & Technology, 2002, 36, 4880-4885.	10.0	12
68	Distribution of uranium, plutonium, and 241Am in soil samples from Idaho National Laboratory. Journal of Radioanalytical and Nuclear Chemistry, 2009, 282, 1013-1017.	1.5	12
69	Chromium speciation in hazardous, cement-based waste forms. Physica B: Condensed Matter, 1995, 208-209, 577-578.	2.7	11
70	Radioanalytical approach to determine 238Pu, 239+240Pu, 241Pu and 241Am in soils. Journal of Radioanalytical and Nuclear Chemistry, 2008, 277, 269-274.	1.5	11
71	Solid-State Recrystallization Pathways of Sodium Aluminate Hydroxy Hydrates. Inorganic Chemistry, 2020, 59, 6857-6865.	4.0	11
72	Nickel desorption kinetics from hydrous ferric oxide in the presence of EDTA. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 107, 123-130.	4.7	10

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73	Stability of U(VI) solid phases in the U(VI)-Ca2+-SiO2-OH system. Radiochimica Acta, 2003, 91, .	1.2	10
74	Using capillary electrophoresis to separate trivalent f-elements based on their speciation when complexed with simple organic ligands. Journal of Radioanalytical and Nuclear Chemistry, 2009, 282, 329-333.	1.5	10
75	Chromatographic separation of Am and Cm. Radiochimica Acta, 2011, 99, 65-69.	1.2	10
76	Two-step route to size and shape controlled gibbsite nanoplates and the crystal growth mechanism. CrystEngComm, 2020, 22, 2555-2565.	2.6	10
77	Intermediate Species in the Crystallization of Sodium Aluminate Hydroxy Hydrates. Journal of Physical Chemistry C, 2020, 124, 12337-12345.	3.1	10
78	Inference of principal species in caustic aluminate solutions through solid-state spectroscopic characterization. Dalton Transactions, 2020, 49, 5869-5880.	3.3	10
79	Actinide partitioning to an acidic, sandy lake sediment. Radiochimica Acta, 2000, 88, 793-798.	1.2	9
80	A spectroscopic investigation of temperature effects on solution complexation in the Eu3+â€“acetate system. Journal of Alloys and Compounds, 2000, 303-304, 37-41.	5.5	9
81	Development of in situ fission track analysis for detecting fissile nuclides in contaminated solid particles. Radiation Measurements, 2005, 40, 37-42.	1.4	9
82	Adsorption of lanthanum to goethite in the presence of gluconate. Radiochimica Acta, 2006, 94, .	1.2	9
83	Study of an alpha track analysis and a fission track analysis for determining the hot particles contaminated with Pu and U isotopes. Applied Radiation and Isotopes, 2007, 65, 85-91.	1.5	9
84	Impact of Environmental Curium on Plutonium Migration and Isotopic Signatures. Environmental Science & Technology, 2014, 48, 13985-13991.	10.0	9
85	Characterization of Actinides Complexed to Nuclear Fuel Constituents Using ESI-MS. Analytical Chemistry, 2016, 88, 2614-2621.	6.5	9
86	Cathodic Preconcentration of f-Elements on a Mercury Film Carbon Fiber Disk Microelectrode. Analytical Chemistry, 2011, 83, 4788-4793.	6.5	8
87	A chemical separation procedure using ionic liquid extraction for 59Fe and 55Fe quantification. Journal of Radioanalytical and Nuclear Chemistry, 2016, 307, 2479-2485.	1.5	8
88	Activation product analysis in a mixed sample containing both fission and neutron activation products. Journal of Radioanalytical and Nuclear Chemistry, 2017, 314, 2501-2506.	1.5	8
89	In Situ Monitoring and Kinetic Analysis of the Extraction of Nitric Acid by Tributyl Phosphate in N-Dodecane Using Raman Spectroscopy. Solvent Extraction and Ion Exchange, 2019, 37, 157-172.	2.0	8
90	Effect of Cr(III) Adsorption on the Dissolution of Boehmite Nanoparticles in Caustic Solution. Environmental Science & Technology, 2020, 54, 6375-6384.	10.0	8

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91	Hydroxide promotes ion pairing in the NaNO₂â€“NaOHâ€“H₂O system. Physical Chemistry Chemical Physics, 2021, 23, 112-122.	2.8	8
92	Radiolysis and Radiation-Driven Dynamics of Boehmite Dissolution Observed by In Situ Liquid-Phase TEM. Environmental Science & Technology, 2022, 56, 5029-5036.	10.0	8
93	A Comparison of the Dissociation Kinetics of Rare Earth Element Complexes with Synthetic Polyelectrolytes and Humic Acid. ACS Symposium Series, 1996, , 207-219.	0.5	7
94	Synthesis and characterization of francoisite-(Nd): Nd[(UO2)3O(OH)(PO4)2]{middle dot}6H2O. American Mineralogist, 2011, 96, 417-422.	1.9	7
95	<scp>O</scp>neâ€dimensional simulation of lanthanide isotachophoresis using <scp>COMSOL</scp>. Electrophoresis, 2012, 33, 880-888.	2.4	7
96	Electrochemical Preconcentration Mechanism of Trivalent Lanthanum. Journal of the Electrochemical Society, 2018, 165, D654-D661.	2.9	7
97	Competitive Interactions Within Cm(III) Solvation in Binary Water/Methanol Solutions. Inorganic Chemistry, 2018, 57, 10050-10058.	4.0	7
98	Influence of soluble oligomeric aluminum on precipitation in the Alâ€“KOHâ€“H2O system. Physical Chemistry Chemical Physics, 2020, 22, 24677-24685.	2.8	7
99	237 Np analytical method using 239 Np tracers and application to a contaminated nuclear disposal facility. Journal of Environmental Radioactivity, 2017, 172, 89-95.	1.7	6
100	Molecular Examination of Ion-Pair Competition in Alkaline Aluminate Solutions Using In Situ Liquid SIMS. Analytical Chemistry, 2021, 93, 1068-1075.	6.5	6
101	Determination of232Th in human tissues by pre-concentration neutron activation analysis with yield determination using227Th. Journal of Radioanalytical and Nuclear Chemistry, 1998, 234, 65-70.	1.5	5
102	Temperature Dependence of Chloride Complexation for the Trivalent f-Elements. Journal of Radioanalytical and Nuclear Chemistry, 2000, 243, 645-650.	1.5	5
103	Title is missing!. Journal of Radioanalytical and Nuclear Chemistry, 2001, 248, 493-499.	1.5	5
104	Mechanical environmental transport of actinides and 137Cs from an arid radioactive waste disposal site. Journal of Environmental Radioactivity, 2015, 148, 42-49.	1.7	5
105	Determination of tungsten in geochemical reference material basalt Columbia River 2 by radiochemical neutron activation analysis and inductively coupled plasma mass spectrometry. Journal of Radioanalytical and Nuclear Chemistry, 2017, 311, 749-754.	1.5	5
106	Design and optimization of a fusedâ€silica microfluidic device for separation of trivalent lanthanides by isotachophoresis. Electrophoresis, 2019, 40, 2531-2540.	2.4	5
107	The impact of mixed solvents on the complexation thermodynamics of Eu(III) by simple carboxylate and amino carboxylate ligands. Journal of Chemical Thermodynamics, 2017, 114, 83-92.	2.0	4
108	Spectroelectrochemical Sensor for Spectroscopically Hardâ€toâ€detect Metals by in situ Formation of a Luminescent Complex Using Ru(II) as a Model Compound. Electroanalysis, 2018, 30, 2644-2652.	2.9	4

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109	Applications of laser photoacoustic spectroscopy using an optical parametric oscillator to the study of complexation equilibria in dilute aqueous solutions. Journal of Radioanalytical and Nuclear Chemistry, 1998, 235, 11-16.	1.5	3
110	Direct counting of soil wafers: An improved total alpha/beta screening analysis. Journal of Radioanalytical and Nuclear Chemistry, 1998, 235, 173-178.	1.5	3
111	Characterization of Chromium(III) Hydroxide Solids and Their Oxidation by Hydrogen Peroxide. Materials Research Society Symposia Proceedings, 2004, 824, 290.	0.1	3
112	Manpower Requirements and Education in Nuclear Science: An International Perspective. Journal of Radioanalytical and Nuclear Chemistry, 2005, 263, 103-106.	1.5	3
113	An alternative method for chronometric determinations involving curium. Journal of Analytical Atomic Spectrometry, 2014, 29, 2419-2423.	3.0	3
114	Acceleration of metalâ€“ligand complexation kinetics by electrospray ionization. Analyst, The, 2017, 142, 4468-4475.	3.5	3
115	Preconcentration mechanism of trivalent lanthanum on eQCM electrodes in the presence of Î±-hydroxy isobutyric acid. Journal of Electroanalytical Chemistry, 2020, 857, 113731.	3.8	3
116	²⁷Al NMR diffusometry of Al₁₃ Keggin nanoclusters. Magnetic Resonance in Chemistry, 2022, 60, 226-238.	1.9	3
117	Developing Combined Fission Track Analysis and Alpha Track Analysis to Study the Spatial Distribution of U and Pu Sorbed to Environmental Particles. Journal of Nuclear Science and Technology, 2002, 39, 493-496.	1.3	2
118	Solubility of triuranyl diphosphate tetrahydrate (TDT) and Na autunite at 23 and 50ÂÂ°C. Radiochimica Acta, 2010, 98, .	1.2	2
119	Uranyl photochemistry: decarboxylation of gluconic acid. Radiochimica Acta, 2010, 98, .	1.2	2
120	Optimization of the electrochemical pre-concentration of trivalent lanthanum from aqueous media. Radiochimica Acta, 2016, 104, .	1.2	2
121	Further structural analysis of Cr(III) oligomers in weakly acidic solutions. Polyhedron, 2016, 105, 77-83.	2.2	2
122	Alcohol Clustering Mechanisms in Supercritical Carbon Dioxide Using Pulsed-Field Gradient, Diffusion NMR and Network Analysis: Feedback on Stepwise Self-Association Models. Journal of Physical Chemistry B, 2019, 123, 5316-5323.	2.6	2
123	Response to Comment on "Nickel Adsorption to Hydrous Ferric Oxide in the Presence of EDTA: Effects of Component Addition Sequence". Environmental Science & Technology, 1995, 29, 3072-3072.	10.0	1
124	Radiochemistry Education at Washington State University: Sustaining Academic Radiochemistry for the Nation. , 2009, , .		1
125	Characterization of the behavior and mechanism of electrochemical pre-concentration of plutonium from aqueous solution. Journal of Radioanalytical and Nuclear Chemistry, 2017, 311, 279-287.	1.5	1
126	Electrochemical precipitation of neptunium with a micro electrochemical quartz crystal microbalance. Journal of Radioanalytical and Nuclear Chemistry, 2020, 324, 1021-1030.	1.5	1

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127	Photon-In/Photon-Out X-ray Free-Electron Laser Studies of Radiolysis. Applied Sciences (Switzerland), 2021, 11, 701.	2.5	1
128	Isotopic Substitution Reveals the Importance of Aluminate Diffusion Dynamics in Gibbsite (Al(OH)₃) Crystallization from Alkaline Aqueous Solution. ACS Earth and Space Chemistry, 0, , .	2.7	1
129	The effect of elevated temperature on the complexation of am3+ with chloride. Biological Trace Element Research, 1999, 71-72, 647-647.	3.5	0
130	The American Chemical Society's Summer Schools in Nuclear and Radiochemistry. Journal of Radioanalytical and Nuclear Chemistry, 2005, 263, 107-110.	1.5	0
131	The Influence of Simple Organic Ligands on the Partitioning Mechanism of Trivalent Lanthanum to Goethite. ACS Symposium Series, 2006, , 277-291.	0.5	0
132	Appreciation to Referees. Radiochimica Acta, 2010, 98, 819-821.	1.2	0
133	Studies of the Complexation of Gluconate with Th(IV) in Acidic Solutions: Stability Constant Determination and Coordination Mode Analysis. Inorganic Chemistry, 2020, 59, 891-899.	4.0	0