

# Gregg J Lumetta

## List of Publications by Year in descending order

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43  
papers

1,292  
citations

430442

18  
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395343

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g-index

52  
all docs

52  
docs citations

52  
times ranked

1001  
citing authors

#	ARTICLE	IF	CITATIONS
1	Actinide Lanthanide Separation Process—ALSEP. Industrial & Engineering Chemistry Research, 2014, 53, 1624-1631.	1.8	161
2	Review of the Scientific Understanding of Radioactive Waste at the U.S. DOE Hanford Site. Environmental Science & Technology, 2018, 52, 381-396.	4.6	130
3	Review: Solvent Systems Combining Neutral and Acidic Extractants for Separating Trivalent Lanthanides from the Transuranic Elements. Solvent Extraction and Ion Exchange, 2010, 28, 287-312.	0.8	111
4	The Actinide-Lanthanide Separation Concept. Solvent Extraction and Ion Exchange, 2014, 32, 333-347.	0.8	89
5	Advanced separation techniques for nuclear fuel reprocessing and radioactive waste treatment. , 2011, , .		72
6	Study of the Interaction between HDEHP and CMPO and Its Effect on the Extraction of Selected Lanthanides. Industrial & Engineering Chemistry Research, 2012, 51, 10433-10444.	1.8	61
7	The TRUSPEAK Concept: Combining CMPO and HDEHP for Separating Trivalent Lanthanides from the Transuranic Elements. Solvent Extraction and Ion Exchange, 2013, 31, 223-236.	0.8	44
8	Multivariate Analysis for Quantification of Plutonium(IV) in Nitric Acid Based on Absorption Spectra. Analytical Chemistry, 2017, 89, 9354-9359.	3.2	41
9	Closing the Nuclear Fuel Cycle with a Simplified Minor Actinide Lanthanide Separation Process (ALSEP) and Additive Manufacturing. Scientific Reports, 2019, 9, 12842.	1.6	37
10	Neodymium(III) Complexes of Dialkylphosphoric and Dialkylphosphonic Acids Relevant to Liquid-Liquid Extraction Systems. Inorganic Chemistry, 2016, 55, 1633-1641.	1.9	34
11	Nitric Acid and Water Extraction by T2EHDGA in <i>n</i> -Dodecane. Solvent Extraction and Ion Exchange, 2017, 35, 586-603.	0.8	31
12	An Advanced TALSPEAK Concept Using 2-Ethylhexylphosphonic Acid Mono-2-Ethylhexyl Ester as the Extractant. Solvent Extraction and Ion Exchange, 2015, 33, 211-223.	0.8	27
13	An Advanced TALSPEAK Concept for Separating Minor Actinides. Part 1. Process Optimization and Flowsheet Development. Solvent Extraction and Ion Exchange, 2017, 35, 377-395.	0.8	26
14	An Advanced TALSPEAK Concept for Separating Minor Actinides. Part 2. Flowsheet Test with Actinide-spiked Simulant. Solvent Extraction and Ion Exchange, 2017, 35, 396-407.	0.8	25
15	Minor actinide separation in the reprocessing of spent nuclear fuels. , 2015, , 289-312.		24
16	Simulant testing of a co-decontamination (CoDCon) flowsheet for a product with a controlled uranium-to-plutonium ratio. Separation Science and Technology, 2019, 54, 1977-1984.	1.3	23
17	Sensor Fusion: Comprehensive Real-Time, On-Line Monitoring for Process Control via Visible, Near-Infrared, and Raman Spectroscopy. ACS Sensors, 2020, 5, 2467-2475.	4.0	23
18	Extraction Behavior of Ln(III) Ions by T2EHDGA in <i>n</i> -Dodecane from Nitric Acid and Sodium Nitrate Solutions. Solvent Extraction and Ion Exchange, 2018, 36, 331-346.	0.8	21

#	ARTICLE	IF	CITATIONS
19	Combining Octyl(phenyl)-N,N-diisobutyl-carbamoylmethylphosphine Oxide and Bis-(2-ethylhexyl)phosphoric Acid Extractants for Recovering Transuranic Elements from Irradiated Nuclear Fuel. ACS Symposium Series, 2010, , 107-118.	0.5	20
20	Combining CMPO and HEH[EHP] for Separating Trivalent Lanthanides from the Transuranic Elements. Solvent Extraction and Ion Exchange, 2013, 31, 567-577.	0.8	20
21	Revisiting complexation thermodynamics of transplutonium elements up to einsteinium. Chemical Communications, 2018, 54, 10578-10581.	2.2	20
22	Significance of the Nuclear Fuel Cycle in the 21 <sup>st</sup> Century. ACS Symposium Series, 2006, , 3-20.	0.5	19
23	Americium(III) oxidation by copper(III) periodate in nitric acid solution as compared with the action of Bi(V) compounds of sodium, lithium, and potassium. Radiochimica Acta, 2015, 103, 541-552.	0.5	19
24	Evolution of Acid-Dependent Am <sup>3+</sup> and Eu <sup>3+</sup> Organic Coordination Environment: Effects on the Extraction Efficiency. Inorganic Chemistry, 2020, 59, 4453-4467.	1.9	19
25	Inner versus outer sphere metal-monoamide complexation: ramifications for tetravalent & hexavalent actinide selectivity. New Journal of Chemistry, 2018, 42, 5415-5424.	1.4	16
26	Characterization of High Phosphate Radioactive Tank Waste and Simulant Development. Environmental Science & Technology, 2009, 43, 7843-7848.	4.6	15
27	Accomplishing Equilibrium in ALSEP: Demonstrations of Modified Process Chemistry on 3-D Printed Enhanced Annular Centrifugal Contactors. Procedia Chemistry, 2016, 21, 167-173.	0.7	15
28	Countercurrent Actinide Lanthanide Separation Process (ALSEP) Demonstration Test with a Simulated PUREX Raffinate in Centrifugal Contactors on the Laboratory Scale. Applied Sciences (Switzerland), 2020, 10, 7217.	1.3	14
29	Lipophilic ternary complexes in liquid-liquid extraction of trivalent lanthanides. Journal of Coordination Chemistry, 2012, 65, 741-753.	0.8	13
30	Overcoming Oxidation State-Dependent Spectral Interferences: Online Monitoring of U(VI) Reduction to U(IV) via Raman and UV-vis Spectroscopy. Industrial & Engineering Chemistry Research, 2020, 59, 8894-8901.	1.8	13
31	Separating and Stabilizing Phosphate from High-Level Radioactive Waste: Process Development and Spectroscopic Monitoring. Environmental Science & Technology, 2012, 46, 6190-6197.	4.6	10
32	Electrochemistry and Spectroelectrochemistry of the Pu (III/IV) and (IV/VI) Couples in Nitric Acid Systems. Electroanalysis, 2017, 29, 2744-2751.	1.5	10
33	Organic and Aqueous Redox Speciation of Cu(III) Periodate Oxidized Transuranium Actinides. Industrial & Engineering Chemistry Research, 2018, 57, 1277-1283.	1.8	10
34	In situ microscopy across scales for the characterization of crystal growth mechanisms: the case of europium oxalate. CrystEngComm, 2018, 20, 2822-2833.	1.3	10
35	Effect of HEH[EHP] impurities on the ALSEP solvent extraction process. Solvent Extraction and Ion Exchange, 2018, 36, 22-40.	0.8	9
36	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.	0.8	8

#	ARTICLE	IF	CITATIONS
37	Electric Potentials of Metastable Salt Clusters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14010-14023.	1.5	4
38	A newly proposed isotherm model to predict Cs exchange with crystalline silicotitanate in tank waste simulants. <i>Separation Science and Technology</i> , 2022, 57, 1714-1723.	1.3	4
39	Incorporating spectroscopic on-line monitoring as a method of detection for a Lewis cell setup. <i>Analyst, The</i> , 2017, 142, 2426-2433.	1.7	3
40	Molar absorptivities of U(VI), U(IV), and Pu(III) in nitric acid solutions of various concentrations relevant to developing nuclear fuel recycling flowsheets. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2020, 324, 773-789.	0.7	3
41	Studies of the Fundamental Chemistry of Hanford Tank Sludges. , 2003, , 177.		2
42	Solvent Modification in Ion-Pair Extraction: Effect on Sodium Nitrate Transport in Nitrobenzene Using a Crown Ether. <i>Journal of Solution Chemistry</i> , 2005, 34, 1145-1166.	0.6	2
43	Optical Spectroscopic Investigation of Hexavalent Actinide Ions in n-Dodecane Solutions of Tri-butyl Phosphate. <i>Solvent Extraction and Ion Exchange</i> , 2021, 39, 56-73.	0.8	2