Sam Bryan

List of Publications by Year
in descending order

63 papers	1,154 citations	304743 22 h-index	434195 31 g-index
67 all docs	67 docs citations	67 times ranked	843 citing authors

#	Article	IF	Citations
1	Spectroscopic monitoring of spent nuclear fuel reprocessing streams: an evaluation of spent fuel solutions<i>via</i>Raman, visible, and near-infrared spectroscopy. Radiochimica Acta, 2011, 99, 563-572.	1.2	72
2	Electrochemical and optical evaluation of noble metalâ€“ and carbonâ€“ITO hybrid optically transparent electrodes. Journal of Electroanalytical Chemistry, 2004, 565, 311-320.	3.8	53
3	Spectroelectrochemical Sensing Based on Multimode Selectivity Simultaneously Achievable in a Single Device. 11. Design and Evaluation of a Small Portable Sensor for the Determination of Ferrocyanide in Hanford Waste Samples. Environmental Science & Technology, 2003, 37, 123-130.	10.0	50
4	Multivariate Analysis for Quantification of Plutonium(IV) in Nitric Acid Based on Absorption Spectra. Analytical Chemistry, 2017, 89, 9354-9359.	6.5	41
5	Water Oâ€“H Stretching Raman Signature for Strong Acid Monitoring via Multivariate Analysis. Analytical Chemistry, 2013, 85, 4120-4128.	6.5	39
6	Highly Selective Colorimetric and Luminescence Response of a Square-Planar Platinum(II) Terpyridyl Complex to Aqueous TcO₄^{â€“}. Inorganic Chemistry, 2015, 54, 9914-9923.	4.0	39
7	Mechanisms of neptunium redox reactions in nitric acid solutions. Inorganic Chemistry Frontiers, 2017, 4, 581-594.	6.0	39
8	Absorption spectroscopy for the quantitative prediction of lanthanide concentrations in the 3LiClâ€“2CsCl eutectic at 723 K. Analytical Methods, 2016, 8, 7731-7738.	2.7	38
9	Semi-Infinite Linear Diffusion Spectroelectrochemistry on an Aqueous <i>Micro</i>-Drop. Analytical Chemistry, 2011, 83, 4214-4219.	6.5	36
10	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
11	Highly Oxidizing Excited States of Re and Tc Complexes. Journal of the American Chemical Society, 2006, 128, 16494-16495.	13.7	35
12	Micro-Raman Technology to Interrogate Two-Phase Extraction on a Microfluidic Device. Analytical Chemistry, 2018, 90, 8345-8353.	6.5	34
13	Luminescence-Based Spectroelectrochemical Sensor for [Tc(dmpe)₃]^{2+/+} (dmpe = 1,2-<i>bis</i>(dimethylphosphino)ethane) within a Charge-Selective Polymer Film. Analytical Chemistry, 2011, 83, 1766-1772.	6.5	33
14	Electrochemistry and Spectroelectrochemistry of Europium(III) Chloride in 3LiClâ€“2KCl from 643 to 1123 K. Analytical Chemistry, 2013, 85, 9924-9931.	6.5	33
15	Development of Online Spectroscopic pH Monitoring for Nuclear Fuel Reprocessing Plants: Weak Acid Schemes. Analytical Chemistry, 2015, 87, 5139-5147.	6.5	31
16	Online Monitoring of Solutions Within Microfluidic Chips: Simultaneous Raman and UVâ€“Vis Absorption Spectroscopies. ACS Sensors, 2019, 4, 2288-2295.	7.8	30
17	Spectroelectrochemical Sensing Based on Multimode Selectivity Simultaneously Achievable in a Single Device.. Electroanalysis, 2002, 14, 1345-1352.	2.9	28
18	Optically Transparent Thin-Film Electrode Chip for Spectroelectrochemical Sensing. Analytical Chemistry, 2017, 89, 7324-7332.	6.5	28

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19	Thinâ€Layer Spectroelectrochemistry on an Aqueous Microdrop. Electroanalysis, 2012, 24, 1065-1070.	2.9	26
20	Fourier Transform Infrared Spectroscopy and Multivariate Analysis for Online Monitoring of Dibutyl Phosphate Degradation Product in Tributyl Phosphate/<i>n</i>-Dodecane/Nitric Acid Solvent. Industrial & Engineering Chemistry Research, 2013, 52, 17607-17617.	3.7	26
21	Sensor Fusion: Comprehensive Real-Time, On-Line Monitoring for Process Control via Visible, Near-Infrared, and Raman Spectroscopy. ACS Sensors, 2020, 5, 2467-2475.	7.8	23
22	Luminescence from thetrans-Dioxotechnetium(V) Chromophore. Journal of the American Chemical Society, 2005, 127, 14978-14979.	13.7	22
23	Development and testing of a novel micro-Raman probe and application of calibration method for the quantitative analysis of microfluidic nitric acid streams. Analyst, The, 2018, 143, 1188-1196.	3.5	22
24	Reimagining pH Measurement: Utilizing Raman Spectroscopy for Enhanced Accuracy in Phosphoric Acid Systems. Analytical Chemistry, 2020, 92, 5882-5889.	6.5	20
25	Electronic and Molecular Structures oftrans-Dioxotechnetium(V) Polypyridyl Complexes in the Solid State. Inorganic Chemistry, 2011, 50, 5815-5823.	4.0	19
26	Spectroscopic on-line monitoring for process control and safeguarding of radiochemical streams in nuclear fuel reprocessing facilities. , 2011, , 95-119.		16
27	Spectroelectrochemistry of EuCl₃ in Four Molten Salt Eutectics; 3â€…LiClâˆ'NaCl, 3â€…LiClâˆ'2â€…KCl, LiClâˆ'RbCl, and 3â€…LiClâˆ'2â€…CsCl; at 873â€…K. Electroanalysis, 2016, 28, 2158-2165.	2.9	16
28	Electrochemistry and Spectroelectrochemistry of Luminescent Europium Complexes. Electroanalysis, 2016, 28, 2109-2117.	2.9	16
29	Photophysics and Luminescence Spectroelectrochemistry of [Tc(dmpe)₃]^{+/2+} (dmpe = 1,2-<i>bis</i>(dimethylphosphino)ethane). Journal of Physical Chemistry A, 2013, 117, 12749-12758.	2.5	15
30	On-Line Monitoring of Gas-Phase Molecular Iodine Using Raman and Fluorescence Spectroscopy Paired with Chemometric Analysis. Environmental Science & Technology, 2021, 55, 3898-3908.	10.0	15
31	Absorbanceâ€Based Spectroelectrochemical Sensor for [Re(dmpe)₃]⁺ (dmpe=dimethylphosphinoethane). Electroanalysis, 2009, 21, 2091-2098.	2.9	13
32	Three-component spectroelectrochemical sensor module for the detection of pertechnetate (TcO4-). Reviews in Analytical Chemistry, 2013, 32, .	3.2	13
33	Combinations of NIR, Raman spectroscopy and physicochemical measurements for improved monitoring of solvent extraction processes using hierarchical multivariate analysis models. Analytica Chimica Acta, 2018, 1006, 10-21.	5.4	13
34	Overcoming Oxidation State-Dependent Spectral Interferences: Online Monitoring of U(VI) Reduction to U(IV) via Raman and UVâ€“vis Spectroscopy. Industrial & Engineering Chemistry Research, 2020, 59, 8894-8901.	3.7	13
35	Raman Spectroscopy Coupled with Chemometric Analysis for Speciation and Quantitative Analysis of Aqueous Phosphoric Acid Systems. Analytical Chemistry, 2021, 93, 5890-5896.	6.5	12
36	Separating and Stabilizing Phosphate from High-Level Radioactive Waste: Process Development and Spectroscopic Monitoring. Environmental Science & Technology, 2012, 46, 6190-6197.	10.0	10

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37	Assessing a Spectroelectrochemical Sensorâ€™s Performance for Detecting [Ru(bpy)3]2+ in Natural and Treated Water. Electroanalysis, 2012, 24, 1517-1523.	2.9	10
38	Electrochemistry and Spectroelectrochemistry of the Pu (III/IV) and (IV/VI) Couples in Nitric Acid Systems. Electroanalysis, 2017, 29, 2744-2751.	2.9	10
39	Electrochemistry of Europium(III) Chloride in 3 LiCl â€“ NaCl, 3 LiCl â€“ 2 KCl, LiCl â€“ RbCl, and 3 LiCl â€“ 2 CsCl Eutectics at Various Temperatures. Journal of the Electrochemical Society, 2017, 164, H5345-H5352.	2.9	10
40	In-situ monitoring of seeded and unseeded stage III corrosion using Raman spectroscopy. Npj Materials Degradation, 2019, 3, .	5.8	10
41	MicroRaman Measurements for Nuclear Fuel Reprocessing Applications. Procedia Chemistry, 2016, 21, 466-472.	0.7	9
42	Novel Spectroelectrochemical Sensor for Ferrocyanide in Hanford Waste Simulant. ACS Symposium Series, 2000, , 364-378.	0.5	8
43	Method for the in situ Measurement of pH and Alteration Extent for Aluminoborosilicate Glasses Using Raman Spectroscopy. Analytical Chemistry, 2018, 90, 11812-11819.	6.5	8
44	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
45	Optical Spectroscopy and Multivariate Analysis for Biodosimetry and Monitoring of Radiation Injury to the Skin. Drug Development Research, 2012, 73, 252-273.	2.9	7
46	Mechanisms of Plutonium Redox Reactions in Nitric Acid Solutions. Inorganic Chemistry, 2020, 59, 6826-6838.	4.0	7
47	Quantification of Raman-Interfering Polyoxoanions for Process Analysis: Comparison of Different Chemometric Models and a Demonstration on Real Hanford Waste. Environmental Science & Technology, 2021, 55, 12943-12950.	10.0	7
48	Spectroelectrochemical Sensor: Development and Applications. ECS Transactions, 2009, 19, 129-134.	0.5	6
49	In Situ Spectroscopic Analysis and Quantification of [Tc(CO)3]+ in Hanford Tank Waste. Environmental Science & Technology, 2018, 52, 7796-7804.	10.0	6
50	In situ perchlorate determination on Purolite A850 ion exchange resin via Raman spectroscopy. Vibrational Spectroscopy, 2007, 44, 316-323.	2.2	5
51	<i>trans</i>-K₃[TcO₂(CN)₄]. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, i61-i62.	0.2	5
52	<i>In Situ</i> Quantification of [Re(CO)₃]⁺ by Fluorescence Spectroscopy in Simulated Hanford Tank Waste. Environmental Science & Technology, 2018, 52, 1357-1364.	10.0	5
53	Spectroelectrochemical Sensor for Technetium: Preconcentration and Quantification of Pertechnetate in Polymer-Modified Electrodes. ACS Symposium Series, 2005, , 306-321.	0.5	4
54	Spectroelectrochemical Sensor for Spectroscopically Hardâ€toâ€detect Metals by <i>in situ</i> Formation of a Luminescent Complex Using Ru(II) as a Model Compound. Electroanalysis, 2018, 30, 2644-2652.	2.9	4

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55	Combined Raman and Turbidity Probe for Real-Time Analysis of Variable Turbidity Streams. Analytical Chemistry, 2022, 94, 3652-3660.	6.5	4
56	On-Line Raman Measurement of the Radiation-Enhanced Reaction of Cellobiose with Hydrogen Peroxide. ACS Omega, 2021, 6, 35457-35466.	3.5	4
57	Incorporating spectroscopic on-line monitoring as a method of detection for a Lewis cell setup. Analyst, The, 2017, 142, 2426-2433.	3.5	3
58	Characterization of uranium ore concentrate chemical composition via Raman spectroscopy. , 2018, , .		2
59	Microfluidic In Situ Spectrophotometric Approaches to Tackle Actinides Analysis in Multiple Oxidation States. Applied Spectroscopy, 2022, , 000370282110639.	2.2	2
60	Spectroelectrochemistry as a strategy for improving selectivity of sensors for security and defense applications. Proceedings of SPIE, 2012, , .	0.8	1
61	Spectroelectrochemical sensors: new polymer films for improved sensitivity. Proceedings of SPIE, 2014, , .	0.8	1
62	Spectroelectrochemical Sensor for [Re(dmpe)3]+ Where dmpe = 1,2-bis(dimethylphosphino)ethane. ECS Meeting Abstracts, 2008, , .	0.0	0
63	Electrochemical Oxidation and Speciation of Lanthanides in Potassium Carbonate Solution. Journal of the Electrochemical Society, 0, , .	2.9	0