Bobby Pejcic

List of Publications by Citations

72 papers	1,815 citations	23 h-index	40 g-index
79 ext. papers	2,094 ext. citations	5.1 avg, IF	4.83 L-index

#	Paper	IF	Citations
72	Ion-Selective Electrode Potentiometry in Environmental Analysis. *Electroanalysis*, **2007**, 19, 1987-2001	3	191
71	Impedance spectroscopy: Over 35 years of electrochemical sensor optimization. *Electrochimica Acta* , **2006**, 51, 6217-6229	6.7	188
70	The role of biosensors in the detection of emerging infectious diseases. *Analyst, The*, **2006**, 131, 1079-90	5	143
69	Environmental monitoring of hydrocarbons: a chemical sensor perspective. *Environmental Science & Technology*, **2007**, 41, 6333-42	10.3	93
68	Infrared attenuated total reflectance spectroscopy: an innovative strategy for analyzing mineral components in energy relevant systems. *Scientific Reports*, **2014**, 4, 6764	4.9	87
67	The influence of microstructure on the corrosion rate of various carbon steels. *Journal of Applied Electrochemistry*, **2005**, 35, 139-149	2.6	78
66	Tracers Past, present and future applications in CO2 geosequestration. *Applied Geochemistry*, **2013**, 30, 125-135	3.5	59
65	Biological monitoring for carbon capture and storage A review and potential future developments. *International Journal of Greenhouse Gas Control*, **2012**, 10, 520-535	4.2	58
64	Mid-infrared sensing of organic pollutants in aqueous environments. *Sensors*, **2009**, 9, 6232-53	3.8	43
63	Flow injection potentiometric determination of phosphate in waste waters and fertilisers using a cobalt wire ion-selective electrode. *Analyst, The*, **1998**, 123, 1635-1640	5	40
62	Functionalized graphene as an aqueous phase chemiresistor sensing material. *Sensors and Actuators B: Chemical*, **2011**, 155, 154-158	8.5	38
61	An In Situ Synchrotron Radiation Grazing Incidence X-Ray Diffraction Study of Carbon Dioxide Corrosion. *Journal of the Electrochemical Society*, **2005**, 152, B389	3.9	38
60	Monitoring dissolved carbon dioxide and methane in brine environments at high pressure using IR-ATR spectroscopy. *Analytical Methods*, **2016**, 8, 756-762	3.2	36
59	A multi-technique surface study of the mercury(II) chalcogenide ion-selective electrode in saline media. *Analyst, The*, **2003**, 128, 742-9	5	32
58	Modifying the response of a polymer-based quartz crystal microbalance hydrocarbon sensor with functionalized carbon nanotubes. *Talanta*, **2011**, 85, 1648-57	6.2	30
57	CO2 capture by amine infused hydrogels (AIHs). *Journal of Materials Chemistry A*, **2018**, 6, 4829-4838	13	28
56	Fingerprinting oils in water via their dissolved VOC pattern using mid-infrared sensors. *Analytical Chemistry*, **2014**, 86, 9512-7	7.8	27

55	Direct quantification of aromatic hydrocarbons in geochemical fluids with a mid-infrared attenuated total reflection sensor. *Organic Geochemistry*, **2013**, 55, 63-71	3.1	27
54	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. *Journal of Nanoparticle Research*, **2014**, 16, 1	2.3	27
53	Electrochemical impedance spectroscopy and X-ray photoelectron spectroscopy study of the response mechanism of the chalcogenide glass membrane iron(III) ion-selective electrode in saline media. *Analytical Chemistry*, **2000**, 72, 669-79	7.8	26
52	Using plasticizers to control the hydrocarbon selectivity of a poly(methyl methacrylate)-coated quartz crystal microbalance sensor. *Analytical Chemistry*, **2012**, 84, 8564-70	7.8	25
51	The Influence of Diffusion Fluxes on the Detection Limit of the Jalpaite Copper Ion-Selective Electrode. *Electroanalysis*, **2002**, 14, 493-498	3	23
50	Carbon capture with polyethylenimine hydrogel beads (PEI HBs). *Journal of Materials Chemistry A*, **2018**, 6, 21468-21474	13	23
49	Vibrational spectroscopy of calcic amphiboles - applications for exploration and mining. *European Journal of Mineralogy*, **2012**, 24, 863-878	2.2	22
48	Predicting the Adsorption Properties of Carbon Dioxide Corrosion Inhibitors Using a Structure-Activity Relationship. *Journal of the Electrochemical Society*, **2005**, 152, B1	3.9	22
47	Mid-Infrared Spectroscopic Method for the Identification and Quantification of Dissolved Oil Components in Marine Environments. *Analytical Chemistry*, **2015**, 87, 12306-12	7.8	21
46	Continuous flow analysis of iron (III) in seawater using a chalcogenide glass ion-selective electrode. *Laboratory Robotics and Automation*, **1999**, 11, 284-288		19
45	Hydrocarbon sensing. Part 1: Some important aspects about sensitivity of a polymer-coated quartz crystal microbalance in the aqueous phase. *Sensors and Actuators B: Chemical*, **2009**, 135, 436-443	8.5	18
44	Pore size dynamics in interpenetrated metal organic frameworks for selective sensing of aromatic compounds. *Analytica Chimica Acta*, **2014**, 819, 78-81	6.6	16
43	In situ electrochemical impedance spectroscopy/synchrotron radiation grazing incidence X-ray diffraction: A powerful new technique for the characterization of electrochemical surfaces and interfaces. *Electrochimica Acta*, **2006**, 51, 5920-5925	6.7	15
42	Continuous flow analysis of mercury using a chalcogenide glass ion-selective electrode. *Laboratory Robotics and Automation*, **2000**, 12, 194-199		15
41	Portable Mid-Infrared Sensor System for Monitoring CO2 and CH4 at High Pressure in Geosequestration Scenarios. *ACS Sensors*, **2016**, 1, 413-419	9.2	14
40	A mid-infrared sensor for the determination of perfluorocarbon-based compounds in aquatic systems for geosequestration purposes. *Talanta*, **2014**, 130, 527-35	6.2	14
39	Understanding barium sulfate precipitation onto stainless steel. *Applied Surface Science*, **2008**, 254, 3459-3468	6.7	14
38	Advanced laboratory techniques characterising solids, fluids and pores in shales. *Journal of Petroleum Science and Engineering*, **2019**, 180, 932-949	4.4	13

37	The impact of water and hydrocarbon concentration on the sensitivity of a polymer-based quartz crystal microbalance sensor for organic compounds. *Analytica Chimica Acta*, **2011**, 703, 70-9	6.6	13
36	Characterization of an AgBr□Ag2S□As2S3□HgI2 ion-selective electrode membrane: a X-ray photoelectron and impedance spectroscopy approach. *Applied Surface Science*, **2004**, 228, 378-400	6.7	13
35	Fluoride and phosphate release from carbonate-rich fluorapatite during managed aquifer recharge. *Journal of Hydrology*, **2018**, 562, 809-820	6	13
34	Next generation amino acid technology for CO2 capture. *Journal of Materials Chemistry A*, **2021**, 9, 1692-1704	13	12
33	Field measurement of residual carbon dioxide saturation using reactive ester tracers. *Chemical Geology*, **2015**, 399, 20-29	4.2	11
32	Feasibility of Monitoring Techniques for Substances Mobilised by CO2 Storage in Geological Formations. *Energy Procedia*, **2012**, 23, 439-448	2.3	11
31	In situ synchrotron radiation grazing incidence X-ray diffraction□A powerful technique for the characterization of solid-state ion-selective electrode surfaces. *Electrochimica Acta*, **2006**, 51, 4886-4891	6.7	11
30	Impedance measurements of a chalcogenide membrane iron(III)-selective electrode in contact with aqueous electrolytes. *Electrochimica Acta*, **2004**, 49, 3525-3543	6.7	11
29	Surface studies of a chalcogenide glass ferric ion-selective electrode Part 1: Influence of ferric and hydroxide ions on interfacial kinetics. *Surface and Interface Analysis*, **2002**, 33, 748-758	1.5	11
28	Development of a plasticizer-poly(methyl methacrylate) membrane for sensing petroleum hydrocarbons in water. *Sensors and Actuators B: Chemical*, **2014**, 193, 70-77	8.5	10
27	The Effect of Pressure and Temperature on Mid-Infrared Sensing of Dissolved Hydrocarbons in Water. *Analytical Chemistry*, **2017**, 89, 13391-13397	7.8	10
26	Development of far-infrared attenuated total reflectance spectroscopy for the mineralogical analysis of shales. *Fuel*, **2016**, 182, 771-779	7.1	9
25	A small angle neutron scattering and electrochemical impedance spectroscopy study of the nanostructure of the iron chalcogenide glass ion-selective electrode. *Talanta*, **2004**, 63, 149-57	6.2	9
24	Calixarene□polymer hybrid film for selective detection of hydrocarbons in water. *New Journal of Chemistry*, **2017**, 41, 6195-6202	3.6	8
23	Direct air capture (DAC) of CO using polyethylenimine (PEI) "snow": a scalable strategy. *Chemical Communications*, **2020**, 56, 7151-7154	5.8	8
22	Continuous flow analysis of iron in zinc electrowinning electrolyte using an iron chalcogenide glass ion-selective electrode Part I. Synthetic media. *Talanta*, **2002**, 57, 115-21	6.2	8
21	A controlled CO2 release experiment in a fault zone at the In-Situ Laboratory in Western Australia. *International Journal of Greenhouse Gas Control*, **2020**, 99, 103100	4.2	8
20	An experimental investigation into quantifying CO2 leakage in aqueous environments using chemical tracers. *Chemical Geology*, **2019**, 511, 91-99	4.2	7

19	Surface studies of a chalcogenide glass ferric ion-selective electrode Part 2: The effects of inorganic ions, organic ligands and seawater on sensor response. *Surface and Interface Analysis*, **2002**, 33, 759-766	1.5	7
18	Mineral Physicochemistry Underlying Feature-Based Extraction of Mineral Abundance and Composition from Shortwave, Mid and Thermal Infrared Reflectance Spectra. *Minerals (Basel, Switzerland)*, **2021**, 11, 347	2.4	7
17	Mid-infrared sensor for hydrocarbon monitoring: the influence of salinity, matrix and aging on hydrocarbon–polymer partitioning. *Analytical Methods*, **2018**, 10, 1516-1522	3.2	6
16	Direct infrared spectroscopy for the size-independent identification and quantification of respirable particles relative mass in mine dusts. *Analytical and Bioanalytical Chemistry*, **2020**, 412, 3499-3508	4.4	6
15	Vibrational spectroscopy of epidote, pumpellyite and prehnite applied to low-grade regional metabasites. *Geochemistry: Exploration, Environment, Analysis*, **2017**, geochem2016-007	1.8	5
14	CSIRO In-Situ Lab: A multi-pronged approach to surface gas and groundwater monitoring at geological CO2 storage sites. *Chemical Geology*, **2020**, 545, 119642	4.2	5
13	Polyethylenimine "Snow": An Emerging Material for Efficient Carbon Removal. *ACS Applied Materials & Interfaces*, **2019**, 11, 26770-26780	9.5	5
12	Mechanistic Aspects of Polymeric Relative Permeability Modifier Adsorption onto Carbonate Rocks. *Energy & Fuels*, **2020**, 34, 12065-12077	4.1	4
11	In-Situ Laboratory for CO2 controlled-release experiments and monitoring in a fault zone in Western Australia. *ASEG Extended Abstracts*, **2019**, 2019, 1-3	0.2	4
10	Block Copolymer-Coated ATR-FTIR Spectroscopic Sensors for Monitoring Hydrocarbons in Aquatic Environments at High Temperature and Pressure. *ACS Applied Polymer Materials*, **2019**, 1, 2149-2156	4.3	3
9	The impact of partition coefficient data on the interpretation of chemical tracer behaviour in carbon geosequestration projects. *Chemical Geology*, **2017**, 465, 52-63	4.2	3
8	Amine-Infused Hydrogels with Nonaqueous Solvents: Facile Platforms to Control CO2 Capture Performance. *Industrial & Engineering Chemistry Research*, **2021**, 60, 14758-14767	3.9	3
7	Analysis of carbonaceous materials in shales using mid-infrared spectroscopy. *Vibrational Spectroscopy*, **2021**, 112, 103186	2.1	3
6	Further Insights into the Performance of Silylated Polyacrylamide-Based Relative Permeability Modifiers in Carbonate Reservoirs and Influencing Factors. *ACS Omega*, **2021**, 6, 13671-13683	3.9	2
5	Chemical-assisted minimum miscibility pressure reduction between oil and methane. *Journal of Petroleum Science and Engineering*, **2021**, 196, 108094	4.4	2
4	Investigating the Organic Matter in Shales From the Canning and Perth Basins via Infrared and Raman Spectroscopy **2017**,		1
3	Integrated sedimentary and high-resolution mineralogical characterisation of Ordovician shale from Canning Basin, Western Australia: Implications for facies heterogeneity evaluation. *Journal of Petroleum Science and Engineering*, **2022**, 208, 109347	4.4	1
2	Temperature sensitivity of reactive ester tracers for measuring CO2 residual trapping capacity. *Chemical Geology*, **2015**, 399, 30-35	4.2	

1 Vibrational Spectroscopy for Hydrocarbon Resource Development. *ASEG Extended Abstracts*, **2019**, 2019, 1-4 0.2