

# Jan E Szulejko

## List of Publications by Year in descending order

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105  
papers

3,463  
citations

126907

33  
h-index

168389

53  
g-index

107  
all docs

107  
docs citations

107  
times ranked

3640  
citing authors

#	ARTICLE	IF	CITATIONS
1	A comparative review between amines and ammonia as sorptive media for post-combustion CO <sub>2</sub> capture. <i>Applied Energy</i> , 2015, 148, 10-22.	10.1	172
2	Metal organic frameworks as sorption media for volatile and semi-volatile organic compounds at ambient conditions. <i>Scientific Reports</i> , 2016, 6, 27813.	3.3	132
3	Seeking the most powerful and practical real-world sorbents for gaseous benzene as a representative volatile organic compound based on performance metrics. <i>Separation and Purification Technology</i> , 2019, 212, 980-985.	7.9	131
4	High-Pressure Mass Spectrometric Investigations of the Potential Energy Surfaces of Gas-Phase S <sub>N</sub> 2 Reactions. <i>Journal of the American Chemical Society</i> , 1996, 118, 9360-9367.	13.7	129
5	Metal-organic frameworks for the control and management of air quality: advances and future direction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 345-361.	10.3	120
6	The gas phase ion chemistry of the acetyl cation and isomeric [C <sub>2</sub> H <sub>3</sub> O] <sup>+</sup> ions. On the structure of the [C <sub>2</sub> H <sub>3</sub> O] <sup>+</sup> daughter ions generated from the enol of acetone radical cation. <i>Organic Mass Spectrometry</i> , 1983, 18, 254-262.	1.3	112
7	Global warming projections to 2100 using simple CO <sub>2</sub> greenhouse gas modeling and comments on CO <sub>2</sub> climate sensitivity factor. <i>Atmospheric Pollution Research</i> , 2017, 8, 136-140.	3.8	105
8	Protomers: formation, separation and characterization via travelling wave ion mobility mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2012, 47, 712-719.	1.6	102
9	The potential of biochar as sorptive media for removal of hazardous benzene in air. <i>Chemical Engineering Journal</i> , 2019, 361, 1576-1585.	12.7	94
10	Advanced polymeric materials: Synthesis and analytical application of ion imprinted polymers as selective sorbents for solid phase extraction of metal ions. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 83, 55-69.	11.4	91
11	Collisionally induced dissociative ionization of neutral products from unimolecular ion fragmentations. 1 <sup>st</sup> Neutral product structures. <i>Organic Mass Spectrometry</i> , 1984, 19, 442-447.	1.3	88
12	A review on the role of organic inputs in maintaining the soil carbon pool of the terrestrial ecosystem. <i>Journal of Environmental Management</i> , 2016, 167, 214-227.	7.8	75
13	A comparison of figure of merit (FOM) for various materials in adsorptive removal of benzene under ambient temperature and pressure. <i>Environmental Research</i> , 2019, 168, 96-108.	7.5	73
14	Evidence for Cancer Biomarkers in Exhaled Breath. <i>IEEE Sensors Journal</i> , 2010, 10, 185-210.	4.7	65
15	New Theoretical and Experimental Proton Affinities for Methyl Halides and Diazomethane: A Revision of the Methyl Cation Affinity Scale. <i>The Journal of Physical Chemistry</i> , 1994, 98, 13099-13101.	2.9	63
16	Generation and identification of four stable isomeric [C <sub>3</sub> H <sub>3</sub> ] <sup>+</sup> ions by direct dissociative ionization or by charge reversal of anions. <i>Journal of the American Chemical Society</i> , 1984, 106, 521-525.	13.7	59
17	Review of progress in solvent-extraction techniques for the determination of polyaromatic hydrocarbons as airborne pollutants. <i>TrAC - Trends in Analytical Chemistry</i> , 2014, 61, 40-48.	11.4	59
18	Identifying the best materials for the removal of airborne toluene based on performance metrics - A critical review. <i>Journal of Cleaner Production</i> , 2019, 241, 118408.	9.3	59

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19	Airborne foliar transfer of PM bound heavy metals in <i>Cassia siamea</i> : A less common route of heavy metal accumulation. <i>Science of the Total Environment</i> , 2016, 573, 123-130.	8.0	58
20	A pulsed electron beam, variable temperature, high pressure mass spectrometric re-evaluation of the proton affinity difference between 2-methylpropene and ammonia. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1991, 109, 279-294.	1.8	53
21	Derivatization techniques for determination of carbonyls in air. <i>TrAC - Trends in Analytical Chemistry</i> , 2015, 64, 29-41.	11.4	50
22	Method to predict gas chromatographic response factors for the trace-level analysis of volatile organic compounds based on the effective carbon number concept. <i>Journal of Separation Science</i> , 2013, 36, 3356-3365.	2.5	48
23	Social Impacts of Solar Home Systems in Rural Areas: A Case Study in Bangladesh. <i>Energies</i> , 2017, 10, 1615.	3.1	48
24	A pulsed ionization high-pressure mass spectrometric study of methyl cation transfer and methyl cation-induced clustering in dimethyl ether-acetone mixtures. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1988, 83, 147-161.	1.8	45
25	Air ionization as a control technology for off-gas emissions of volatile organic compounds. <i>Environmental Pollution</i> , 2017, 225, 729-743.	7.5	45
26	The energetics of the formation of positive ions produced by charge-stripping from negative ions. <i>International Journal of Mass Spectrometry and Ion Physics</i> , 1980, 34, 99-111.	1.3	40
27	Toward a better understanding of the impact of mass transit air pollutants on human health. <i>Chemosphere</i> , 2017, 174, 268-279.	8.2	38
28	The effect of flavor content in e-liquids on e-cigarette emissions of carbonyl compounds. <i>Environmental Research</i> , 2018, 166, 324-333.	7.5	37
29	Competitive adsorption of gaseous aromatic hydrocarbons in a binary mixture on nanoporous covalent organic polymers at various partial pressures. <i>Environmental Research</i> , 2019, 173, 1-11.	7.5	37
30	Potential Analytical Applications of Interfacing a GC to an FT-ICR MS: A Fingerprinting Complex Sample Matrixes. <i>Analytical Chemistry</i> , 2002, 74, 3434-3442.	6.5	36
31	Determination of methylamine, dimethylamine, and trimethylamine in air by high-performance liquid chromatography with derivatization using 9-fluorenylmethylchloroformate. <i>Analytical Methods</i> , 2014, 6, 5697-5707.	2.7	36
32	The effect of diverse metal oxides in graphene composites on the adsorption isotherm of gaseous benzene. <i>Environmental Research</i> , 2019, 172, 367-374.	7.5	36
33	Is the maximum adsorption capacity obtained at high VOC pressures ( $>1000$ Pa) really meaningful in real-world applications for the sorptive removal of VOCs under ambient conditions ( $<1$ Pa)? <i>Separation and Purification Technology</i> , 2019, 228, 115729.	7.9	35
34	Chemisorption of hydrogen sulfide by metal-organic frameworks and covalent-organic polymers based on experimental/theoretical evaluation. <i>Journal of Cleaner Production</i> , 2020, 250, 119486.	9.3	35
35	The collisionally induced dissociations of the carboxyl and formate positive and negative ions. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1984, 57, 159-166.	1.8	34
36	Quantitative Analysis of Fragrance and Odorants Released from Fresh and Decaying Strawberries. <i>Sensors</i> , 2013, 13, 7939-7978.	3.8	34

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37	Negative ion mass spectrometry: The generation of high concentrations of low energy molecular negative ions at high source pressures. <i>Organic Mass Spectrometry</i> , 1980, 15, 263-267.	1.3	33
38	Stepwise solvation of halides by alcohol molecules in the gas phase. <i>International Journal of Mass Spectrometry</i> , 1999, 185-187, 707-725.	1.5	32
39	A review on the effect of amination pretreatment for the selective separation of CO <sub>2</sub> . <i>Applied Energy</i> , 2015, 158, 631-642.	10.1	32
40	Bimolecular and unimolecular contributions to the disparate self-chemical ionizations of <i>α</i> -Pinene and camphene isomers. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 2026-2039.	2.8	30
41	Measurements of major VOCs released into the closed cabin environment of different automobiles under various engine and ventilation scenarios. <i>Environmental Pollution</i> , 2016, 215, 340-346.	7.5	30
42	Study of odor from boiled eggs over time using gas chromatography. <i>Microchemical Journal</i> , 2013, 110, 517-529.	4.5	29
43	A review of sampling and pretreatment techniques for the collection of airborne amines. <i>TrAC - Trends in Analytical Chemistry</i> , 2014, 57, 118-134.	11.4	29
44	Experimental validation of an effective carbon number-based approach for the gas chromatography-mass spectrometry quantification of <i>n</i> -compounds lacking authentic standards or surrogates. <i>Analytica Chimica Acta</i> , 2014, 830, 32-41.	5.4	27
45	The potential utility of HKUST-1 for adsorptive removal of benzene vapor from gaseous streams using a denuder versus a packed-bed adsorption system. <i>Journal of Cleaner Production</i> , 2020, 275, 122359.	9.3	25
46	Utilization of metal-organic frameworks for the adsorptive removal of an aliphatic aldehyde mixture in the gas phase. <i>Nanoscale</i> , 2020, 12, 8330-8343.	5.6	25
47	Is the collision induced loss of ethene from the (M + H) <sup>+</sup> ion of butyrophenone a <sup>β</sup> -hydrogen rearrangement?. <i>Canadian Journal of Chemistry</i> , 1986, 64, 764-768.	1.1	22
48	Re-evaluation of effective carbon number (ECN) approach to predict response factors of <i>n</i> -compounds lacking authentic standards or surrogates (CLASS) by thermal desorption analysis with GC-MS. <i>Analytica Chimica Acta</i> , 2014, 851, 14-22.	5.4	22
49	Simulation of the breakthrough behavior of volatile organic compounds against sorbent tube sampler as a function of concentration level and sampling volume. <i>Analytica Chimica Acta</i> , 2014, 835, 46-55.	5.4	21
50	The collisionally induced dissociation of allyl and 2-propenyl cations. <i>Organic Mass Spectrometry</i> , 1983, 18, 596-600.	1.3	20
51	A preconcentrator coupled to a GC/FTMS: Advantages of self-chemical ionization, mass measurement accuracy, and high mass resolving power for GC applications. <i>Journal of the American Society for Mass Spectrometry</i> , 2004, 15, 1191-1200.	2.8	20
52	The gas chromatographic determination of volatile fatty acids in wastewater samples: Evaluation of experimental biases in direct injection method against thermal desorption method. <i>Analytica Chimica Acta</i> , 2014, 820, 159-167.	5.4	19
53	Quantification of nicotine and major solvents in retail electronic cigarette fluids and vaped aerosols. <i>Microchemical Journal</i> , 2018, 140, 262-268.	4.5	19
54	Progress in the reduction of carbon monoxide levels in major urban areas in Korea. <i>Environmental Pollution</i> , 2015, 207, 420-428.	7.5	18

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55	A review of metal organic resins for environmental applications. <i>Journal of Hazardous Materials</i> , 2016, 320, 234-240.	12.4	18
56	Insights into the adsorption capacity and breakthrough properties of a synthetic zeolite against a mixture of various sulfur species at low ppb levels. <i>Journal of Environmental Management</i> , 2016, 166, 484-492.	7.8	18
57	Collision-induced charge-inversion reactions of negative ions: Formation of excited states. <i>International Journal of Mass Spectrometry and Ion Physics</i> , 1981, 37, 27-34.	1.3	17
58	Gas-Phase Basicities of Acid Anhydrides. <i>Journal of Physical Chemistry A</i> , 1998, 102, 9183-9192.	2.5	17
59	Development of the Detection Threshold Concept from a Close Look at Sorption Occurrence Inside a Glass Vial Based on the In-Vial Vaporization of Semivolatile Fatty Acids. <i>Analytical Chemistry</i> , 2014, 86, 6640-6647.	6.5	17
60	Characterization of quality assurance properties of biogenic volatile organic compounds with an emphasis on the breakthrough behavior, recovery, and temporal stability. <i>Microchemical Journal</i> , 2016, 125, 142-150.	4.5	17
61	The unique features of non-competitive vs. competitive sorption: Tests against single volatile aromatic hydrocarbons and their quaternary mixtures. <i>Environmental Research</i> , 2019, 173, 508-516.	7.5	17
62	Simultaneous determination of analyte concentrations, gas-phase basicities, and proton transfer kinetics using gas chromatography/Fourier transform ion cyclotron resonance mass spectrometry (GC/FT-ICR MS). <i>International Journal of Mass Spectrometry</i> , 2006, 257, 16-26.	1.5	16
63	A simple method for the parallel quantification of nicotine and major solvent components in electronic cigarette liquids and vaped aerosols. <i>Microchemical Journal</i> , 2017, 133, 237-245.	4.5	16
64	The micro-environmental impact of volatile organic compound emissions from large-scale assemblies of people in a confined space. <i>Environmental Research</i> , 2016, 151, 304-312.	7.5	15
65	Airborne volatile aromatic hydrocarbons at an urban monitoring station in Korea from 2013 to 2015. <i>Journal of Environmental Management</i> , 2018, 209, 525-538.	7.8	15
66	The generation and identification of the transient vinylidene cation, $[H_2C\dot{\leftarrow}C]^+$ . <i>Chemical Physics Letters</i> , 1984, 107, 301-303.	2.6	14
67	Two new stable $[C_3H_8O]^+$ isomers: the radical cations $[C_3H_6OH_2]^+$ . <i>Journal of the Chemical Society Chemical Communications</i> , 1984, , 165.	2.0	14
68	Determination of carbonyl compounds in electronic cigarette refill solutions and aerosols through liquid-phase dinitrophenyl hydrazine derivatization. <i>Environmental Monitoring and Assessment</i> , 2018, 190, 200.	2.7	14
69	The retrograde adsorption phenomenon at the onset of breakthrough and its quantitation: An experimental case study for gaseous toluene on activated carbon surface. <i>Environmental Research</i> , 2019, 178, 108737.	7.5	14
70	The effect of varying battery voltage output on the emission rate of carbonyls released from e-cigarette smoke. <i>Microchemical Journal</i> , 2019, 145, 47-54.	4.5	14
71	Proof of concept for CUK family metal-organic frameworks as environmentally-friendly adsorbents for benzene vapor. <i>Environmental Pollution</i> , 2021, 285, 117491.	7.5	14
72	Long-term trends in airborne SO <sub>2</sub> in an air quality monitoring station in Seoul, Korea, from 1987 to 2013. <i>Journal of the Air and Waste Management Association</i> , 2017, 67, 923-932.	1.9	13

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73	Evidence of inter-species swing adsorption between aromatic hydrocarbons. <i>Environmental Research</i> , 2020, 181, 108814.	7.5	13
74	The effects of continuous- and stop-flow gas streams on adsorptive removal of benzene vapor using type “II covalent organic polymers. <i>Environmental Research</i> , 2020, 182, 109043.	7.5	13
75	Combined Experimental and Theoretical Study of the Protonation of Polyfluorobenzenes [C <sub>6</sub> H <sub>6-n</sub> F <sub>n</sub> ] (n=0-6). <i>Journal of Mass Spectrometry</i> , 1997, 32, 494-506.	1.6	12
76	Structure and Energetics of Protonated <i>m</i> -Methoxy Alcohols. <i>Journal of Physical Chemistry A</i> , 1998, 102, 1879-1887.	2.5	12
77	Odor and VOC Emissions from Pan Frying of Mackerel at Three Stages: Raw, Well-Done, and Charred. <i>International Journal of Environmental Research and Public Health</i> , 2014, 11, 11753-11771.	2.6	12
78	A quantitation method for gaseous formaldehyde based on gas chromatography with metal-organic framework cold-trap sorbent as an effective alternative for HPLC-based standard protocol. <i>Microchemical Journal</i> , 2021, 160, 105624.	4.5	12
79	A practical approach to estimate emission rates of indoor air pollutants due to the use of personal combustible products based on small-chamber studies. <i>Chemosphere</i> , 2016, 144, 1451-1458.	8.2	11
80	Utilization of activated carbon as an effective replacement for a commercialized three-bed sorbent (Carbopack) to quantitate aromatic hydrocarbons in ambient air. <i>Environmental Research</i> , 2019, 179, 108802.	7.5	11
81	Isomerization and isotope effects in sterically congested cluster ions. <i>Organic Mass Spectrometry</i> , 1993, 28, 1009-1015.	1.3	10
82	a compact high pressure ion source for high and low energy collision-induced dissociation studies of cluster ions on a VG analytical ZAB-2FQ. <i>Journal of the American Society for Mass Spectrometry</i> , 1992, 3, 33-38.	2.8	9
83	Protonation Thermochemistry of Selected Hydroxy- and Methoxycarbonyl Molecules. <i>Journal of Physical Chemistry A</i> , 2005, 109, 11851-11859.	2.5	9
84	An assessment of the liquid-gas partitioning behavior of major wastewater odorants using two comparative experimental approaches: liquid sample-based vaporization vs. impinger-based dynamic headspace extraction into sorbent tubes. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 643-655.	3.7	9
85	Fourier transform ion cyclotron resonance investigation of the deuterium isotope effect on gas phase ion/molecule hydrogen bonding interactions in alcohol-fluoride adduct ions. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1992, 117, 487-505.	1.8	8
86	Airborne iron across major urban centers in South Korea between 1991 and 2012. <i>Science of the Total Environment</i> , 2016, 550, 309-320.	8.0	8
87	Short and Long-Term Temporal Changes in Air Quality in a Seoul Urban Area: The Weekday/Sunday Effect. <i>Sustainability</i> , 2018, 10, 1248.	3.2	8
88	Removal of gaseous benzene by a fixed-bed system packed with a highly porous metal-organic framework (MOF-199) coated glass beads. <i>Environmental Research</i> , 2022, 208, 112655.	7.5	8
89	Vibrational fine structure in the collisionally induced charge reversal and fragmentation of OH <sup>+</sup> ions. <i>Chemical Physics Letters</i> , 1984, 106, 292-296.	2.6	7
90	Proton transfer reactions of halogenated compounds: Using gas chromatography/Fourier transform ion cyclotron resonance mass spectrometry (GC/FT-ICR MS) and ab initio calculations. <i>International Journal of Mass Spectrometry</i> , 2010, 293, 1-11.	1.5	7

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91	Is mass-scale electrocatalysis of aqueous methanol an energetically and economically viable option for hydrogen production?. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 105, 58-62.	5.8	7
92	Efficient injection of low-mass ions into high magnetic field Fourier transform ion cyclotron resonance mass spectrometers. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 230-238.	1.5	6
93	The effect of solvent selection in the gas chromatographic analysis of carbonyls in air samples after derivatization with pentafluorophenyl hydrazine. <i>Atmospheric Research</i> , 2015, 166, 101-109.	4.1	6
94	Estimation of emission factor for odorants released from swine excretion slurries. <i>Science of the Total Environment</i> , 2016, 548-549, 472-478.	8.0	5
95	A critical review on the diverse preconcentration procedures on bag samples in the quantitation of volatile organic compounds from cigarette smoke and other combustion samples. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 85, 65-74.	11.4	5
96	The selection of the standard phase (gas vs. liquid) and the related matrix effect on the direct injection gas chromatographic analysis of VOCs at sub- $\mu$ ppm levels. <i>Atmospheric Pollution Research</i> , 2014, 5, 563-571.	3.8	4
97	Response to the comment on characterization of hazardous and odorous volatiles emitted from scented candles before lighting and when lit. <i>Journal of Hazardous Materials</i> , 2016, 303, 172-173.	12.4	4
98	Sorptive process and breakthrough behavior of odorous volatile compounds on inert surfaces. <i>Scientific Reports</i> , 2018, 8, 13118.	3.3	4
99	Energetics of the charge-stripping process from negative ions. A new method for the estimation of electron affinities. <i>Journal of the Chemical Society Chemical Communications</i> , 1979, , 983.	2.0	3
100	An Exploration on the Suitability of Airborne Carbonyl Compounds Analysis in relation to Differences in Instrumentation (GC-MS versus HPLC-UV) and Standard Phases (Gas versus Liquid). <i>Scientific World Journal</i> , The, 2014, 2014, 1-11.	2.1	3
101	Long-term trend analysis of CO in the Yongsan district of Seoul, Korea, between the years 1987 and 2013. <i>Atmospheric Pollution Research</i> , 2017, 8, 988-996.	3.8	2
102	A theoretical consideration on the unfeasibility of an analytical method recommended for volatile fatty acids (VFA) by the offensive odor prevention law. <i>Korean Journal of Odor Research and Engineering</i> , 2013, 12, 1-7.	0.2	2
103	Differentiation Between Pure Cultures of <i>Streptococcus pyogenes</i> and <i>Pseudomonas aeruginosa</i> by FT-ICR-MS Volatile Analysis. <i>The Open Spectroscopy Journal</i> , 2009, 3, 21-25.	1.0	2
104	Quantitative Approaches for the Determination of Volatile Organic Compounds (VOC) and Its Performance Assessment in Terms of Solvent Types and the Related Matrix Effects. <i>Asian Journal of Atmospheric Environment</i> , 2017, 11, 1-14.	1.1	2
105	Corrigendum to: A review of sampling and pretreatment techniques for the collection of airborne amines. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 77, 243.	11.4	0