Alan G Marshall

List of Publications by Citations

423 papers	30,359 citations	95 h-index	158 g-index
431 ext. papers	32,620 ext. citations	5.4 avg, IF	7.21 L-index

#	Paper	IF	Citations
423	Fourier transform ion cyclotron resonance mass spectrometry: a primer. *Mass Spectrometry Reviews*, **1998**, 17, 1-35	11	1537
422	Fourier transform ion cyclotron resonance spectroscopy. *Chemical Physics Letters*, **1974**, 25, 282-283	2.5	804
421	Petroleomics: the next grand challenge for chemical analysis. *Accounts of Chemical Research*, **2004**, 37, 53-9	24.3	611
420	Kendrick mass defect spectrum: a compact visual analysis for ultrahigh-resolution broadband mass spectra. *Analytical Chemistry*, **2001**, 73, 4676-81	7.8	593
419	Tailored excitation for Fourier transform ion cyclotron mass spectrometry. *Journal of the American Chemical Society*, **1985**, 107, 7893-7897	16.4	582
418	Petroleomics: chemistry of the underworld. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18090-5	11.5	508
417	Exact masses and chemical formulas of individual Suwannee River fulvic acids from ultrahigh resolution electrospray ionization Fourier transform ion cyclotron resonance mass spectra. *Analytical Chemistry*, **2003**, 75, 1275-84	7.8	468
416	External accumulation of ions for enhanced electrospray ionization fourier transform ion cyclotron resonance mass spectrometry. *Journal of the American Society for Mass Spectrometry*, **1997**, 8, 970-976	3.5	428
415	A universal algorithm for fast and automated charge state deconvolution of electrospray mass-to-charge ratio spectra. *Journal of the American Society for Mass Spectrometry*, **1998**, 9, 225-33	3.5	426
414	The role of electron capture dissociation in biomolecular analysis. *Mass Spectrometry Reviews*, **2005**, 24, 201-22	11	426
413	Electron capture dissociation and infrared multiphoton dissociation MS/MS of an N-glycosylated tryptic peptic to yield complementary sequence information. *Analytical Chemistry*, **2001**, 73, 4530-6	7.8	343
412	Resolution and Identification of Elemental Compositions for More than 3000 Crude Acids in Heavy Petroleum by Negative-Ion Microelectrospray High-Field Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2001**, 15, 1505-1511	4.1	342
411	Resolution of 11,000 compositionally distinct components in a single electrospray ionization Fourier transform ion cyclotron resonance mass spectrum of crude oil. *Analytical Chemistry*, **2002**, 74, 4145-9	7.8	337
410	Frequency-sweep fourier transform ion cyclotron resonance spectroscopy. *Chemical Physics Letters*, **1974**, 26, 489-490	2.5	295
409	KIT kinase mutants show unique mechanisms of drug resistance to imatinib and sunitinib in gastrointestinal stromal tumor patients. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 1542-7	11.5	288
408	Stored waveform inverse Fourier transform (SWIFT) ion excitation in trapped-ion mass spectometry: Theory and applications. *International Journal of Mass Spectrometry and Ion Processes*, **1996**, 157-158, 5-37		282
407	Reading Chemical Fine Print: Resolution and Identification of 3000 Nitrogen-Containing Aromatic Compounds from a Single Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrum of Heavy Petroleum Crude Oil. *Energy & Fuels*, **2001**, 15, 492-498	4.1	279

406	Free electron laser-Fourier transform ion cyclotron resonance mass spectrometry facility for obtaining infrared multiphoton dissociation spectra of gaseous ions. *Review of Scientific Instruments*, **2005**, 76, 023103	1.7	273
405	High-resolution mass spectrometers. *Annual Review of Analytical Chemistry*, **2008**, 1, 579-99	12.5	269
404	Milestones in fourier transform ion cyclotron resonance mass spectrometry technique development. *International Journal of Mass Spectrometry*, **2000**, 200, 331-356	1.9	252
403	Probing protein ligand interactions by automated hydrogen/deuterium exchange mass spectrometry. *Analytical Chemistry*, **2006**, 78, 1005-14	7.8	250
402	Identification of acidic NSO compounds in crude oils of different geochemical origins by negative ion electrospray Fourier transform ion cyclotron resonance mass spectrometry. *Organic Geochemistry*, **2002**, 33, 743-759	3.1	250
401	Petroleomics: MS Returns to Its Roots.. *Analytical Chemistry*, **2005**, 77, 20 A-27 A	7.8	249
400	A high-performance modular data system for Fourier transform ion cyclotron resonance mass spectrometry. *Rapid Communications in Mass Spectrometry*, **1996**, 10, 1839-44	2.2	238
399	Ionization and fragmentation of humic substances in electrospray ionization Fourier transform-ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **2002**, 74, 4397-409	7.8	237
398	Combined electron capture and infrared multiphoton dissociation for multistage MS/MS in a Fourier transform ion cyclotron resonance mass spectrometer. *Analytical Chemistry*, **2003**, 75, 3256-62	7.8	228
397	Atmospheric pressure photoionization fourier transform ion cyclotron resonance mass spectrometry for complex mixture analysis. *Analytical Chemistry*, **2006**, 78, 5906-12	7.8	217
396	Two- and three-dimensional van krevelen diagrams: a graphical analysis complementary to the kendrick mass plot for sorting elemental compositions of complex organic mixtures based on ultrahigh-resolution broadband fourier transform ion cyclotron resonance mass measurements. *Analytical Chemistry*, **2004**, 76, 2511-6	7.8	217
395	Fourier transform ion cyclotron resonance mass spectrometry. *Accounts of Chemical Research*, **1985**, 18, 316-322	24.3	217
394	Electrospray ionization Fourier transform ion cyclotron resonance at 9.4 T. *Rapid Communications in Mass Spectrometry*, **1996**, 10, 1824-8	2.2	195
393	Key Generation From Wireless Channels: A Review. *IEEE Access*, **2016**, 4, 614-626	3.5	190
392	Identification of novel interactions in HIV-1 capsid protein assembly by high-resolution mass spectrometry. *Journal of Molecular Biology*, **2003**, 325, 759-72	6.5	188
391	Predator data station: A fast data acquisition system for advanced FT-ICR MS experiments. *International Journal of Mass Spectrometry*, **2011**, 306, 246-252	1.9	186
390	A novel 9.4 tesla FTICR mass spectrometer with improved sensitivity, mass resolution, and mass range. *Journal of the American Society for Mass Spectrometry*, **2011**, 22, 1343-51	3.5	182
389	High resolution mass spectrometry. *Analytical Chemistry*, **2012**, 84, 708-19	7.8	177

388	High-performance mass spectrometry: Fourier transform ion cyclotron resonance at 14.5 Tesla. *Analytical Chemistry*, **2008**, 80, 3985-90	7.8	177
387	Identification of Vanadyl Porphyrins in a Heavy Crude Oil and Raw Asphaltene by Atmospheric Pressure Photoionization Fourier Transform Ion Cyclotron Resonance (FT-ICR) Mass Spectrometry. *Energy & Fuels*, **2009**, 23, 2122-2128	4.1	171
386	Water-soluble atmospheric organic matter in fog: exact masses and chemical formula identification by ultrahigh-resolution fourier transform ion cyclotron resonance mass spectrometry. *Environmental Science & Technology*, **2010**, 44, 3690-7	10.3	170
385	Microbial alteration of the acidic and neutral polar NSO compounds revealed by Fourier transform ion cyclotron resonance mass spectrometry. *Organic Geochemistry*, **2005**, 36, 1117-1134	3.1	170
384	Comparison and interconversion of the two most common frequency-to-mass calibration functions for Fourier transform ion cyclotron resonance mass spectrometry. *International Journal of Mass Spectrometry*, **2000**, 195-196, 591-598	1.9	164
383	Fourier transform ion cyclotron resonance mass spectrometry: the teenage years. *Analytical Chemistry*, **1991**, 63, 215A-229A	7.8	163
382	Elemental Composition Analysis of Processed and Unprocessed Diesel Fuel by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2001**, 15, 1186-1193	4.1	160
381	Application of micro-electrospray liquid chromatography techniques to FT-ICR MS to enable high-sensitivity biological analysis. *Journal of the American Society for Mass Spectrometry*, **1998**, 9, 333-40	3.5	156
380	Sulfur Speciation in Petroleum: Atmospheric Pressure Photoionization or Chemical Derivatization and Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2007**, 21, 2869-2874	4.1	154
379	Fourier transform ion cyclotron resonance detection: principles and experimental configurations. *International Journal of Mass Spectrometry*, **2002**, 215, 59-75	1.9	154
378	Petroleomics: advanced molecular probe for petroleum heavy ends. *Journal of Mass Spectrometry*, **2011**, 46, 337-43	2.2	151
377	Heavy Petroleum Composition. 3. Asphaltene Aggregation. *Energy & Fuels*, **2013**, 27, 1246-1256	4.1	149
376	Parts-per-billion Fourier transform ion cyclotron resonance mass measurement accuracy with a "walking" calibration equation. *Analytical Chemistry*, **2011**, 83, 1732-6	7.8	147
375	Heavy Petroleum Composition. 5. Compositional and Structural Continuum of Petroleum Revealed. *Energy & Fuels*, **2013**, 27, 1268-1276	4.1	146
374	Acidic and neutral polar NSO compounds in Smackover oils of different thermal maturity revealed by electrospray high field Fourier transform ion cyclotron resonance mass spectrometry. *Organic Geochemistry*, **2004**, 35, 863-880	3.1	146
373	Observation of the doubly charged, gas-phase fullerene anions C602- and C702-. *Journal of the American Chemical Society*, **1991**, 113, 6795-6798	16.4	146
372	Contrasting Perspective on Asphaltene Molecular Weight. This Comment vs the Overview of A. A. Herod, K. D. Bartle, and R. Kandiyoti. *Energy & Fuels*, **2008**, 22, 1765-1773	4.1	145
371	Petroleum crude oil characterization by IMS-MS and FTICR MS. *Analytical Chemistry*, **2009**, 81, 9941-7	7.8	143

370	Characterization of amino acid side chain losses in electron capture dissociation. *Journal of the American Society for Mass Spectrometry*, **2002**, 13, 241-9	3.5	140
369	Improved ion extraction from a linear octopole ion trap: SIMION analysis and experimental demonstration. *Journal of the American Society for Mass Spectrometry*, **2002**, 13, 1304-12	3.5	138
368	Theory of Fourier transform ion cyclotron resonance mass spectroscopy: Response to frequency-sweep excitation. *Journal of Chemical Physics*, **1980**, 73, 1581-1590	3.9	138
367	Relaxation and spectral line shape in Fourier transform ion resonance spectroscopy. *Journal of Chemical Physics*, **1979**, 71, 4434-4444	3.9	136
366	An ultrahigh-resolution mass spectrometry index to estimate natural organic matter lability. *Rapid Communications in Mass Spectrometry*, **2015**, 29, 2385-401	2.2	135
365	Mass Spectral Analysis of Asphaltenes. II. Detailed Compositional Comparison of Asphaltenes Deposit to Its Crude Oil Counterpart for Two Geographically Different Crude Oils by ESI FT-ICR MS. *Energy & Fuels*, **2006**, 20, 1973-1979	4.1	134
364	Truly "exact" mass: Elemental composition can be determined uniquely from molecular mass measurement at ~0.1mDa accuracy for molecules up to ~500Da. *International Journal of Mass Spectrometry*, **2006**, 251, 260-265	1.9	134
363	Advantages of High Magnetic Field for Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Rapid Communications in Mass Spectrometry*, **1996**, 10, 1819-1823	2.2	134
362	21 Tesla Fourier Transform Ion Cyclotron Resonance Mass Spectrometer: A National Resource for Ultrahigh Resolution Mass Analysis. *Journal of the American Society for Mass Spectrometry*, **2015**, 26, 1626-32	3.5	133
361	Heavy Petroleum Composition. 4. Asphaltene Compositional Space. *Energy & Fuels*, **2013**, 27, 1257-1267	4.1	133
360	Quadrupolar excitation and collisional cooling for axialization and high pressure trapping of ions in Fourier transform ion cyclotron resonance mass spectrometry. *International Journal of Mass Spectrometry and Ion Processes*, **1992**, 120, 71-83		132
359	Automated broadband phase correction of Fourier transform ion cyclotron resonance mass spectra. *Analytical Chemistry*, **2010**, 82, 8807-12	7.8	131
358	Heavy Petroleum Composition. 1. Exhaustive Compositional Analysis of Athabasca Bitumen HVGO Distillates by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry: A Definitive Test of the Boduszynski Model. *Energy & Fuels*, **2010**, 24, 2929-2938	4.1	131
357	Closed network growth of fullerenes. *Nature Communications*, **2012**, 3, 855	17.4	127
356	Mass Spectral Analysis of Asphaltenes. I. Compositional Differences between Pressure-Drop and Solvent-Drop Asphaltenes Determined by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2006**, 20, 1965-1972	4.1	123
355	Resolution and chemical formula identification of aromatic hydrocarbons and aromatic compounds containing sulfur, nitrogen, or oxygen in petroleum distillates and refinery streams. *Analytical Chemistry*, **1996**, 68, 46-71	7.8	122
354	Fourier transform ion cyclotron resonance mass spectrometry: technique developments. *International Journal of Mass Spectrometry and Ion Processes*, **1992**, 118-119, 37-70		122
353	Gas-phase bovine ubiquitin cation conformations resolved by gas-phase hydrogen/deuterium exchange rate and extent. *International Journal of Mass Spectrometry*, **1999**, 185-187, 565-575	1.9	119

352	Theory of Fourier transform ion cyclotron resonance mass spectroscopy. I. Fundamental equations and low-pressure line shape. *Journal of Chemical Physics*, **1976**, 64, 110-119	3.9	119
351	Expansion of the analytical window for oil spill characterization by ultrahigh resolution mass spectrometry: beyond gas chromatography. *Environmental Science & Technology*, **2013**, 47, 7530-9	10.3	116
350	Molecular characterization of dissolved organic matter in a North Brazilian mangrove porewater and mangrove-fringed estuaries by ultrahigh resolution Fourier Transform-Ion Cyclotron Resonance mass spectrometry and excitation/emission spectroscopy. *Marine Chemistry*, **2007**, 105, 15-29	3.7	116
349	Use of Saturates/Aromatics/Resins/Asphaltenes (SARA) Fractionation To Determine Matrix Effects in Crude Oil Analysis by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2006**, 20, 668-672	4.1	116
348	Determination of aberrant O-glycosylation in the IgA1 hinge region by electron capture dissociation fourier transform-ion cyclotron resonance mass spectrometry. *Journal of Biological Chemistry*, **2005**, 280, 19136-45	5.4	116
347	Characterization of naphthenic acids in crude oils and naphthenates by electrospray ionization FT-ICR mass spectrometry. *International Journal of Mass Spectrometry*, **2011**, 300, 149-157	1.9	113
346	Stepwise Structural Characterization of Asphaltenes during Deep Hydroconversion Processes Determined by Atmospheric Pressure Photoionization (APPI) Fourier Transform Ion Cyclotron Resonance (FT-ICR) Mass Spectrometry *Energy & Fuels*, **2010**, 24, 2257-2265	4.1	112
345	Chemical Sniffing Instrumentation for Security Applications. *Chemical Reviews*, **2016**, 116, 8146-72	68.1	112
344	Targeted Petroleomics: Analytical Investigation of Macondo Well Oil Oxidation Products from Pensacola Beach. *Energy & Fuels*, **2014**, 28, 4043-4050	4.1	111
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342	Identification of water-soluble heavy crude oil organic-acids, bases, and neutrals by electrospray ionization and field desorption ionization fourier transform ion cyclotron resonance mass spectrometry. *Environmental Science & Technology*, **2007**, 41, 2696-702	10.3	108
341	Identification of intact proteins in mixtures by alternated capillary liquid chromatography electrospray ionization and LC ESI infrared multiphoton dissociation Fourier transform ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **1999**, 71, 4397-402	7.8	108
340	Shrink-wrapping an ion cloud for high-performance Fourier transform ion cyclotron resonance mass spectrometry. *Chemical Reviews*, **1994**, 94, 2161-2182	68.1	108
339	Structural switch of lysyl-tRNA synthetase between translation and transcription. *Molecular Cell*, **2013**, 49, 30-42	17.6	104
338	Speciation of nitrogen containing aromatics by atmospheric pressure photoionization or electrospray ionization fourier transform ion cyclotron resonance mass spectrometry. *Journal of the American Society for Mass Spectrometry*, **2007**, 18, 1265-73	3.5	103
337	Ion traps for Fourier transform ion cyclotron resonance mass spectrometry: principles and design of geometric and electric configurations. *International Journal of Mass Spectrometry and Ion Processes*, **1995**, 146-147, 261-296		102
336	Protein Molecular Mass to 1 Da by 13C, 15N Double-Depletion and FT-ICR Mass Spectrometry. *Journal of the American Chemical Society*, **1997**, 119, 433-434	16.4	101
335	Construction of a hybrid quadrupole/Fourier transform ion cyclotron resonance mass spectrometer for versatile MS/MS above 10 kDa. *Journal of the American Society for Mass Spectrometry*, **2004**, 15, 1099-108	3.5	101

334	Compositional Characterization of Bitumen/Water Emulsion Films by Negative- and Positive-Ion Electrospray Ionization and Field Desorption/Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2007**, 21, 963-972	4.1	100
333	A "screened" electrostatic ion trap for enhanced mass resolution, mass accuracy, reproducibility, and upper mass limit in Fourier transform ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **1989**, 61, 1288-93	7.8	100
332	Epitope mapping of a 95 kDa antigen in complex with antibody by solution-phase amide backbone hydrogen/deuterium exchange monitored by Fourier transform ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **2011**, 83, 7129-36	7.8	99
331	Heavy Petroleum Composition. 2. Progression of the Boduszynski Model to the Limit of Distillation by Ultrahigh-Resolution FT-ICR Mass Spectrometry. *Energy & Fuels*, **2010**, 24, 2939-2946	4.1	96
330	Resolution of 10 000 Compositionally Distinct Components in Polar Coal Extracts by Negative-Ion Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2003**, 17, 946-953	4.1	96
329	Scaling MS plateaus with high-resolution FT-ICRMS. *Analytical Chemistry*, **2002**, 74, 252A-259A	7.8	95
328	Top-down structural analysis of an intact monoclonal antibody by electron capture dissociation-Fourier transform ion cyclotron resonance-mass spectrometry. *Analytical Chemistry*, **2013**, 85, 4239-46	7.8	94
327	Electrically compensated Fourier transform ion cyclotron resonance cell for complex mixture mass analysis. *Analytical Chemistry*, **2011**, 83, 6907-10	7.8	94
326	Characterization of vegetable oils: detailed compositional fingerprints derived from electrospray ionization fourier transform ion cyclotron resonance mass spectrometry. *Journal of Agricultural and Food Chemistry*, **2004**, 52, 5322-8	5.7	94
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324	Molecular characterization of petroporphyrins in crude oil by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry. *Canadian Journal of Chemistry*, **2001**, 79, 546-551	0.9	90
323	Excitation modes for fourier transform-ion cyclotron resonance mass spectrometry. *Journal of the American Society for Mass Spectrometry*, **1993**, 4, 433-52	3.5	90
322	Experimental determination of the number of trapped ions, detection limit, and dynamic range in Fourier transform ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **1993**, 65, 135-140	7.8	89
321	Compositional Boundaries for Fossil Hydrocarbons. *Energy & Fuels*, **2011**, 25, 2174-2178	4.1	88
320	Petroleomics: Advanced Characterization of Petroleum-Derived Materials by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry (FT-ICR MS) **2007**, 63-93		88
319	Baseline mass resolution of peptide isobars: a record for molecular mass resolution. *Analytical Chemistry*, **2001**, 73, 647-50	7.8	87
318	Characterization of Pine Pellet and Peanut Hull Pyrolysis Bio-oils by Negative-Ion Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2012**, 26, 3810-3815	4.1	86
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316	Comprehensive characterization of marine dissolved organic matter by Fourier transform ion cyclotron resonance mass spectrometry with electrospray and atmospheric pressure photoionization. *Rapid Communications in Mass Spectrometry*, **2010**, 24, 643-50	2.2	84
315	Combined top-down and bottom-up mass spectrometric approach to characterization of biomarkers for renal disease. *Analytical Chemistry*, **2005**, 77, 7163-71	7.8	82
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312	Resolution, Elemental Composition, and Simultaneous Monitoring by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry of Organosulfur Species before and after Diesel Fuel Processing. *Analytical Chemistry*, **1998**, 70, 4743-4750	7.8	80
311	Characterization of IHSS Pony Lake fulvic acid dissolved organic matter by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry and fluorescence spectroscopy. *Organic Geochemistry*, **2013**, 65, 19-28	3.1	79
310	Comprehensive theory of the Fourier transform ion cyclotron resonance signal for all ion trap geometries. *Journal of Chemical Physics*, **1991**, 94, 5341-5352	3.9	79
309	Characterization of Athabasca Bitumen Heavy Vacuum Gas Oil Distillation Cuts by Negative/Positive Electrospray Ionization and Automated Liquid Injection Field Desorption Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*,	4.1	78
308	Enhanced digestion efficiency, peptide ionization efficiency, and sequence resolution for protein hydrogen/deuterium exchange monitored by Fourier transform ion cyclotron resonance mass spectrometry. *Analytical Chemistry*, **2008**, 80, 9034-41	7.8	78
307	Characterization of Compositional Changes in Vacuum Gas Oil Distillation Cuts by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance (FT-ICR) Mass Spectrometry. *Energy & Fuels*, **2006**, 20, 1664-1673	4.1	78
306	Analysis of O-glycan heterogeneity in IgA1 myeloma proteins by Fourier transform ion cyclotron resonance mass spectrometry: implications for IgA nephropathy. *Analytical and Bioanalytical Chemistry*, **2007**, 389, 1397-407	4.4	77
305	Selective-phase Ion Cyclotron Resonance Spectroscopy. *Canadian Journal of Chemistry*, **1974**, 52, 1997-1999	2.9	77
304	Unique domain appended to vertebrate tRNA synthetase is essential for vascular development. *Nature Communications*, **2012**, 3, 681	17.4	76
303	Secondary fragmentation of linear peptides in electron capture dissociation. *International Journal of Mass Spectrometry*, **2003**, 228, 723-728	1.9	76
302	Unprecedented Ultrahigh Resolution FT-ICR Mass Spectrometry and Parts-Per-Billion Mass Accuracy Enable Direct Characterization of Nickel and Vanadyl Porphyrins in Petroleum from Natural Seeps. *Energy & Fuels*, **2014**, 28, 2454-2464	4.1	75
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299	High-resolution field desorption/ionization fourier transform ion cyclotron resonance mass analysis of nonpolar molecules. *Analytical Chemistry*, **2003**, 75, 2172-6	7.8	75

298	Stored waveform inverse Fourier transform axial excitation/ejection for quadrupole ion trap mass spectrometry. *Analytical Chemistry*, **1993**, 65, 1288-94	7.8	74
297	Chemical Speciation of Calcium and Sodium Naphthenate Deposits by Electrospray Ionization FT-ICR Mass Spectrometry. *Energy & Fuels*, **2009**, 23, 349-355	4.1	73
296	Enhancement of the effective resolution of mass spectra of high-mass biomolecules by maximum entropy-based deconvolution to eliminate the isotopic natural abundance distribution. *Journal of the American Society for Mass Spectrometry*, **1997**, 8, 659-670	3.5	73
295	Detailed Elemental Compositions of Emulsion Interfacial Material versus Parent Oil for Nine Geographically Distinct Light, Medium, and Heavy Crude Oils, Detected by Negative- and Positive-Ion Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2007**, 21, 973-981	4.1	73
294	Mass Spectrometry: Recent Advances and Future Directions. *The Journal of Physical Chemistry*, **1996**, 100, 12897-12910		73
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292	Theoretical and experimental prospects for protein identification based solely on accurate mass measurement. *Journal of Proteome Research*, **2004**, 3, 61-7	5.6	71
291	Electron capture dissociation and infrared multiphoton dissociation of oligodeoxynucleotide dications. *Journal of the American Society for Mass Spectrometry*, **2003**, 14, 23-41	3.5	71
290	Comprehensive Compositional Analysis of Hydrotreated and Untreated Nitrogen-Concentrated Fractions from Syncrude Oil by Electron Ionization, Field Desorption Ionization, and Electrospray Ionization Ultrahigh-Resolution FT-ICR Mass Spectrometry. *Energy & Fuels*, **2006**, 20, 1235-1241	4.1	70
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287	High-sensitivity electron capture dissociation tandem FTICR mass spectrometry of microelectrosprayed peptides. *Analytical Chemistry*, **2001**, 73, 3605-10	7.8	68
286	The early development of Fourier transform ion cyclotron resonance (FT-ICR) spectroscopy. *Journal of Mass Spectrometry*, **1996**, 31, 581-5	2.2	68
285	Stored waveform simultaneous mass-selective ejection/excitation for Fourier transform ion cyclotron resonance mass spectrometry. *International Journal of Mass Spectrometry and Ion Processes*, **1987**, 79, 115-125		68
284	ESI FT-ICR mass spectral analysis of coal liquefaction products. *Fuel*, **2005**, 84, 1790-1797	7.1	66
283	Solid-Phase Extraction Fractionation To Extend the Characterization of Naphthenic Acids in Crude Oil by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. *Energy & Fuels*, **2014**, 28, 5043-5048	4.1	65
282	Speciation of Aromatic Compounds in Petroleum Refinery Streams by Continuous Flow Field Desorption Ionization FT-ICR Mass Spectrometry. *Energy & Fuels*, **2005**, 19, 1566-1573	4.1	65
281	Identification of hydrotreatment-resistant heteroatomic species in a crude oil distillation cut by electrospray ionization FT-ICR mass spectrometry. *Fuel*, **2006**, 85, 2071-2080	7.1	65

280	Assigning product ions from complex MS/MS spectra: the importance of mass uncertainty and resolving power. *Journal of the American Society for Mass Spectrometry*, **2005**, 16, 183-98	3.5	64
279	Fourier transform ion cyclotron resonance mass spectrometry **1990**, 225-278		64
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275	Efficient Key Generation by Exploiting Randomness From Channel Responses of Individual OFDM Subcarriers. *IEEE Transactions on Communications*, **2016**, 64, 2578-2588	6.9	62
274	Bottom-up formation of endohedral mono-metallofullerenes is directed by charge transfer. *Nature Communications*, **2014**, 5, 5844	17.4	61
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