

# Han-Bin Oh

## List of Publications by Year in descending order

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96  
papers

2,655  
citations

236612

25  
h-index

205818

48  
g-index

98  
all docs

98  
docs citations

98  
times ranked

2056  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detailed Unfolding and Folding of Gaseous Ubiquitin Ions Characterized by Electron Capture Dissociation. <i>Journal of the American Chemical Society</i> , 2002, 124, 6407-6420.	6.6	296
2	Top-down mass spectrometry of a 29-kDa protein for characterization of any posttranslational modification to within one residue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 1774-1779.	3.3	248
3	Secondary and tertiary structures of gaseous protein ions characterized by electron capture dissociation mass spectrometry and photofragment spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 15863-15868.	3.3	226
4	Nonergodic and conformational control of the electron capture dissociation of protein cations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 14011-14016.	3.3	158
5	Infrared Photodissociation Spectroscopy of Electrosprayed Ions in a Fourier Transform Mass Spectrometer. <i>Journal of the American Chemical Society</i> , 2005, 127, 4076-4083.	6.6	155
6	Top down characterization of secreted proteins from <i>Mycobacterium tuberculosis</i> by electron capture dissociation mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2003, 14, 253-261.	1.2	76
7	Plasma Electron Capture Dissociation for the Characterization of Large Proteins by Top Down Mass Spectrometry. <i>Analytical Chemistry</i> , 2003, 75, 1599-1603.	3.2	74
8	Optimized Automatic Noise Level Calculations for Broadband FT-ICR Mass Spectra of Petroleum Give More Reliable and Faster Peak Picking Results. <i>Bulletin of the Korean Chemical Society</i> , 2009, 30, 2665-2668.	1.0	66
9	Gas-phase peptide sequencing by TEMPO-mediated radical generation. <i>Analyst</i> , 2009, 134, 1706.	1.7	64
10	Proposed nomenclature for peptide ion fragmentation. <i>International Journal of Mass Spectrometry</i> , 2015, 390, 24-27.	0.7	63
11	Hydrogen Atom Loss in Electron-Capture Dissociation: A Fourier Transform-Ion Cyclotron Resonance Study with Single Isotopomeric Ubiquitin Ions. <i>European Journal of Mass Spectrometry</i> , 2002, 8, 177-180.	0.5	51
12	Disulfide bond cleavage in TEMPO-free radical initiated peptide sequencing mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2011, 46, 830-839.	0.7	43
13	Radical-driven peptide backbone dissociation tandem mass spectrometry. <i>Mass Spectrometry Reviews</i> , 2015, 34, 116-132.	2.8	41
14	Observation of pronounced b <sub>x</sub> y cleavages in the electron capture dissociation mass spectrometry of polyamidoamine (PAMAM) dendrimer ions with amide functionalities. <i>Journal of the American Society for Mass Spectrometry</i> , 2006, 17, 536-543.	1.2	38
15	Numerous Isomers of Serine Octamer Ions Characterized by Infrared Photodissociation Spectroscopy. <i>ChemPhysChem</i> , 2009, 10, 2603-2606.	1.0	37
16	Multivariate Analysis of Electron Detachment Dissociation and Infrared Multiphoton Dissociation Mass Spectra of Heparan Sulfate Tetrasaccharides Differing Only in Hexuronic acid Stereochemistry. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 582-590.	1.2	33
17	Structural and functional characterization of an Isd-type haem-degradation enzyme from <i>Listeria monocytogenes</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 615-626.	2.5	32
18	Biofilm development of <i>Bacillus siamensis</i> ATKU1 on pristine short chain low-density polyethylene: A case study on microbe-microplastics interaction. <i>Journal of Hazardous Materials</i> , 2021, 409, 124516.	6.5	32

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19	One-Step Peptide Backbone Dissociations in Negative-Ion Free Radical Initiated Peptide Sequencing Mass Spectrometry. <i>Analytical Chemistry</i> , 2013, 85, 7044-7051.	3.2	30
20	Noncovalent Complexes of Cyclodextrin with Small Organic Molecules: Applications and Insights into Host-Guest Interactions in the Gas Phase and Condensed Phase. <i>Molecules</i> , 2020, 25, 4048.	1.7	30
21	Dynamics of harpooning studied by transition state spectroscopy. II. Li <sup>+</sup> ...FH. <i>Journal of Chemical Physics</i> , 2000, 113, 9897-9900.	1.2	29
22	Reliable screening and confirmation of 156 multi-class illegal adulterants in dietary supplements based on extracted common ion chromatograms by ultra-high-performance liquid chromatography-quadrupole/time of flight-mass spectrometry. <i>Journal of Chromatography A</i> , 2017, 1491, 43-56.	1.8	29
23	Photoelectron spectroscopy of pyridine cluster anions, (Py) <sup>n-</sup> (n=4-13). <i>Journal of Chemical Physics</i> , 1999, 111, 4041-4050.	1.2	28
24	Theoretical study of the ionic hydrogen bond in the isolated proton-bound dimer of cytosine. <i>Chemical Physics Letters</i> , 2006, 432, 269-274.	1.2	26
25	Ultraviolet photodissociation at 266 nm of phosphorylated peptide cations. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 3609-3620.	0.7	26
26	LC-MS/MS Software for Screening Unknown Erectile Dysfunction Drugs and Analogues: Artificial Neural Network Classification, Peak-Count Scoring, Simple Similarity Search, and Hybrid Similarity Search Algorithms. <i>Analytical Chemistry</i> , 2019, 91, 9119-9128.	3.2	25
27	Synergistic effects of urban tributary mixing on dissolved organic matter biodegradation in an impounded river system. <i>Science of the Total Environment</i> , 2019, 676, 105-119.	3.9	25
28	Base-pair interactions in the gas-phase proton-bonded complexes of C+G and C+GC. <i>Journal of Chemical Physics</i> , 2007, 127, 245102.	1.2	24
29	Characterization of permethylated $\beta$ -cyclodextrin-peptide noncovalently bound complexes using electron capture dissociation mass spectrometry (ECD MS). <i>International Journal of Mass Spectrometry</i> , 2009, 279, 47-52.	0.7	24
30	Chiral differentiation of D- and L-isoleucine using permethylated $\beta$ -cyclodextrin: infrared multiple photon dissociation spectroscopy, ion-mobility mass spectrometry, and DFT calculations. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 30428-30436.	1.3	24
31	Properties of Polyhexamethylene Guanidine (PHMG) Associated with Fatal Lung Injury in Korea. <i>Molecules</i> , 2020, 25, 3301.	1.7	24
32	Chiral differentiation of D- and L-alanine by permethylated $\beta$ -cyclodextrin: IRMPD spectroscopy and DFT methods. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 14729-14737.	1.3	22
33	Photodissociation of TEMPO-modified peptides: new approaches to radical-directed dissociation of biomolecules. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 4871.	1.3	21
34	Electron capture dissociation mass spectrometry of peptide cations containing a lysine homologue: a mobile proton model for explaining the observation of b-type product ions. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 3167-3175.	0.7	20
35	Application of paper EWOD (electrowetting-on-dielectrics) chip: Protein tryptic digestion and its detection using MALDI-TOF mass spectrometry. <i>Biochip Journal</i> , 2017, 11, 146-152.	2.5	18
36	Dynamic Modeling of Lactic Acid Fermentation Metabolism with <i>Lactococcus lactis</i> . <i>Journal of Microbiology and Biotechnology</i> , 2011, 21, 162-169.	0.9	18

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37	Tautomerism and isomerism of guanine-cytosine DNA base pair: Ab initio and density functional theory approaches. <i>Computational and Theoretical Chemistry</i> , 2005, 730, 241-249.	1.5	17
38	Rapid screening of sulfonamides in dietary supplements based on extracted common ion chromatogram and neutral loss scan by LC-Q/TOF-mass spectrometry. <i>Journal of Food and Drug Analysis</i> , 2019, 27, 164-174.	0.9	17
39	Infrared multiple photon dissociation spectroscopy and density functional theory (DFT) studies of protonated permethylated $\beta$ -cyclodextrin-water non-covalent complexes. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 8376.	1.3	16
40	An anomalous dissociation of protonated cluster ions of DNA guanine-cytosine base-pair. <i>Mass Spectrometry Letters</i> , 2011, 2, 73-75.	0.5	16
41	Quantitative analysis of polyhexamethylene guanidine (PHMG) oligomers via matrix-assisted laser desorption/ionization time-of-flight mass spectrometry with an ionic liquid matrix. <i>Rapid Communications in Mass Spectrometry</i> , 2015, 29, 213-219.	0.7	15
42	Determination of the Intracellular Concentrations of Metabolites in Escherichia coli Collected during the Exponential and Stationary Growth Phases using Liquid Chromatography-Mass Spectrometry. <i>Bulletin of the Korean Chemical Society</i> , 2011, 32, 524-530.	1.0	15
43	Dynamics of harpooning studied by transition state spectroscopy. Part III. $\text{Li}^+\text{FCH}_3$ . <i>Faraday Discussions</i> , 2001, 118, 191-207.	1.6	13
44	A Liquid Chromatography-Quadrupole-Time of Flight Mass Spectrometry (LC-Q-TOF MS) Study for Analyzing 35 Corticosteroid Compounds: Elucidation of MS/MS Fragmentation Pathways. <i>Bulletin of the Korean Chemical Society</i> , 2016, 37, 1029-1038.	1.0	13
45	Ionization of Gas-Phase Polycyclic Aromatic Hydrocarbons in Electrospray Ionization Coupled with Gas Chromatography. <i>Analytical Chemistry</i> , 2018, 90, 4203-4211.	3.2	13
46	Multiresidue analysis of 85 persistent organic pollutants in small human serum samples by modified QuEChERS preparation with different ionization sources in mass spectrometry. <i>Journal of Chromatography A</i> , 2020, 1623, 461170.	1.8	13
47	Inactivation of the $\beta$ (1, 2)-xylosyltransferase and the $\beta$ (1, 3)-fucosyltransferase gene in rice ( <i>Oryza</i> ) Tj ETQq1 1 0.784314 r <sub>BT</sub> /Over	2.8	13
48	MALDI-TOF Analysis of Polyhexamethylene Guanidine (PHMG) Oligomers Used as a Commercial Antibacterial Humidifier Disinfectant. <i>Bulletin of the Korean Chemical Society</i> , 2013, 34, 1708-1714.	1.0	13
49	Evaluation of the internal temperatures of an 8.6 kDa protein cation exposed to a hot dispenser cathode employed in electron capture dissociation mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 1918-1924.	0.7	12
50	Increased incorporation of gaseous CO <sub>2</sub> into succinate by Escherichia coli overexpressing carbonic anhydrase and phosphoenolpyruvate carboxylase genes. <i>Journal of Biotechnology</i> , 2017, 241, 101-107.	1.9	12
51	Reliable screening and classification of phosphodiesterase type 5 inhibitors in dietary supplements using gas chromatography / mass spectrometry combined with specific common ions. <i>Journal of Chromatography A</i> , 2020, 1623, 461210.	1.8	12
52	Host-Guest Chemistry in the Gas Phase: Complex Formation with 18-Crown-6 Enhances Helicity of Alanine-Based Peptides. <i>Journal of Physical Chemistry A</i> , 2011, 115, 14215-14220.	1.1	11
53	MALDI In-Source Decay Mass Spectrometry of Polyamidoamine Dendrimers. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1821-1825.	1.2	11
54	Structural and biochemical study of Bacillus subtilis HmoB in complex with heme. <i>Biochemical and Biophysical Research Communications</i> , 2014, 446, 286-291.	1.0	11

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55	Characteristics of Exposure to Chloromethylisothiazolinone (CMIT) and Methylisothiazolinone (MIT) among Humidifier Disinfectant-Associated Lung Injury (HDLI) Patients in South Korea. <i>Molecules</i> , 2020, 25, 5284.	1.7	11
56	Charge-Directed Peptide Backbone Dissociations of o-TEMPO-Bz-C(O)-Peptides. <i>Mass Spectrometry Letters</i> , 2013, 4, 71-74.	0.5	11
57	Design and synthesis of new mass tags for matrix-free laser desorption ionization mass spectrometry (LDI-MS) based on 6,11-dihydrothiochromeno[4,3-b]indole. <i>Tetrahedron</i> , 2016, 72, 5612-5619.	1.0	10
58	TEMPO-Assisted Free Radical-Initiated Peptide Sequencing Mass Spectrometry (FRIPS MS) in Q-TOF and Orbitrap Mass Spectrometers: Single-Step Peptide Backbone Dissociations in Positive Ion Mode. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 154-163.	1.2	10
59	Guanidination of lysine residue improves the sensitivity and facilitates the interpretation of free radical initiated peptide sequencing (FRIPS) mass spectrometry results. <i>International Journal of Mass Spectrometry</i> , 2015, 390, 110-117.	0.7	9
60	Online Simultaneous Hydrogen/Deuterium Exchange of Multitarget Gas-Phase Molecules by Electrospray Ionization Mass Spectrometry Coupled with Gas Chromatography. <i>Analytical Chemistry</i> , 2017, 89, 12284-12292.	3.2	9
61	Investigation of the MALDI Process Used to Characterize Self-Assembled Monolayers of Alkanethiolates on Gold. <i>Langmuir</i> , 2009, 25, 3692-3697.	1.6	8
62	Zinc-finger motif noncovalent interactions with double-stranded DNA characterized by negative-ion electrospray ionization mass spectrometry. <i>Analyst</i> , The, 2011, 136, 3739.	1.7	8
63	Bromine isotopic signature facilitates <i>de novo</i> sequencing of peptides in free radical-initiated peptide sequencing (FRIPS) mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2015, 50, 378-387.	0.7	8
64	Sample preparation of chemical warfare agent simulants on a digital microfluidic (DMF) device using magnetic bead-based solid-phase extraction. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1.	1.0	8
65	Untargeted Metabolomics and Steroid Signatures in Urine of Male Pattern Baldness Patients after Finasteride Treatment for a Year. <i>Metabolites</i> , 2020, 10, 131.	1.3	8
66	Liposome leakage and increased cellular permeability induced by guanidine-based oligomers: effects of liposome composition on liposome leakage and human lung epithelial barrier permeability. <i>RSC Advances</i> , 2021, 11, 32000-32011.	1.7	8
67	Unveiling host-guest solvent interactions in solution by identifying highly unstable host-guest configurations in thermal non-equilibrium gas phase. <i>Scientific Reports</i> , 2022, 12, 8169.	1.6	8
68	Synergetic and antagonistic role of natural antioxidant in the autoxidation of soybean oil. <i>Journal of Industrial and Engineering Chemistry</i> , 2011, 17, 537-542.	2.9	7
69	Infrared Multiple Photon Depletion of the Gas-phase Proton-bound Cytosine Dimer. <i>Chemistry Letters</i> , 2015, 44, 1756-1758.	0.7	7
70	Prediction of liquid chromatography retention times of erectile dysfunction drugs and analogues using chemometric approaches. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2017, 40, 790-797.	0.5	7
71	Enhanced Incorporation of Gaseous CO <sub>2</sub> to Succinate by a Recombinant <i>Escherichia coli</i> W3110. <i>Biotechnology and Bioprocess Engineering</i> , 2019, 24, 103-108.	1.4	7
72	Photo-Oxidative Protection of Chlorophyll a in C-Phycocyanin Aqueous Medium. <i>Antioxidants</i> , 2020, 9, 1235.	2.2	7

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73	Characteristics of the Molecular Weight of Polyhexamethylene Guanidine (PHMG) Used as a Household Humidifier Disinfectant. <i>Molecules</i> , 2021, 26, 4490.	1.7	7
74	Quantitative MALDI-TOF mass spectrometric analysis of biocidal polyhexamethylene guanidine (PHMG) oligomers in consumer products. <i>International Journal of Mass Spectrometry</i> , 2019, 435, 298-304.	0.7	6
75	Revealing Unknown Controlled Substances and New Psychoactive Substances Using High-Resolution LC-MS-MS Machine Learning Models and the Hybrid Similarity Search Algorithm. <i>Journal of Analytical Toxicology</i> , 2022, 46, 732-742.	1.7	6
76	A solvent-free headspace GC/MS method for sensitive screening of <i>N</i> -nitrosodimethylamine in drug products. <i>Analytical Methods</i> , 2021, 13, 3402-3409.	1.3	6
77	Fragmentation Pathways of Tadalafil and Its Analogues in Electrospray Ionization Tandem Mass Spectrometry. <i>Bulletin of the Korean Chemical Society</i> , 2018, 39, 190-196.	1.0	5
78	Free Radical-Initiated Peptide Sequencing Mass Spectrometry for Phosphopeptide Post-translational Modification Analysis. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 538-547.	1.2	5
79	Graph theory-based reaction pathway searches and DFT calculations for the mechanism studies of free radical-initiated peptide sequencing mass spectrometry (FRIPS MS): a model gas-phase reaction of GGR tri-peptide. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5057-5069.	1.3	5
80	Tandem mass spectrometric analysis of isosorbide-1,4-cyclohexane-dicarboxylic acid polyester oligomer cations using ion-trap mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2013, 27, 1913-1918.	0.7	4
81	MALDI-TOF Mass Spectrometric Analysis of Chemical Warfare Nerve Agent Simulants. <i>Bulletin of the Korean Chemical Society</i> , 2016, 37, 316-320.	1.0	4
82	Comprehensive screening of multiclass illegal adulterants in herbal supplements and Spice-type drugs using specific MS/MS fragmentations by UHPLC-Q/TOF-MS. <i>Analytical Methods</i> , 2019, 11, 5260-5273.	1.3	4
83	TEMPO-Assisted Free-Radical-Initiated Peptide Sequencing Mass Spectrometry for Ubiquitin Ions: An Insight on the Gas-Phase Conformations. <i>Journal of the American Society for Mass Spectrometry</i> , 2022, 33, 471-481.	1.2	4
84	Protein Analysis Using a Combination of an Online Monolithic Trypsin Immobilized Enzyme Reactor and Collisionally-Activated Dissociation/Electron Transfer Dissociation Dual Tandem Mass Spectrometry. <i>Bulletin of the Korean Chemical Society</i> , 2012, 33, 3233-3240.	1.0	3
85	A Multidimensional System for Phosphopeptide Analysis Using TiO <sub>2</sub> Enrichment and Ion-exchange Chromatography with Mass Spectrometry. <i>Bulletin of the Korean Chemical Society</i> , 2012, 33, 3298-3302.	1.0	3
86	Collisionally-Activated Dissociation of Peptides with a Disulfide Bond: Confirmation of the Mobile-Proton Model Based Explanation. <i>Mass Spectrometry Letters</i> , 2010, 1, 5-8.	0.2	3
87	Production of uracil from methane by a newly isolated <i>Methylobacterium</i> sp. SW1. <i>Journal of Biotechnology</i> , 2016, 240, 43-47.	1.9	2
88	Microbial production of uracil by an isolated <i>Methylobacterium</i> sp. WJ4 using methanol. <i>Enzyme and Microbial Technology</i> , 2018, 111, 63-66.	1.6	2
89	GC-MS Method for the Quantitative Analysis of Limonene from Genetically Engineered <i>Saccharomyces cerevisiae</i> . <i>Bulletin of the Korean Chemical Society</i> , 2018, 39, 1368-1372.	1.0	2
90	Sex-related differences in urinary immune-related metabolic profiling of alopecia areata patients. <i>Metabolomics</i> , 2020, 16, 15.	1.4	2

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91	Density Functional Theory (DFT) Study of Gas-phase O.C Bond Dissociation Energy of Models for o-TEMPO-Bz-C(O)-Peptide: A Model Study for Free Radical Initiated Peptide Sequencing. Bulletin of the Korean Chemical Society, 2014, 35, 770-774.	1.0	2
92	Collisional Activation Dissociation Mass Spectrometry Studies of Oligosaccharides Conjugated with Na <sup>+</sup> -Encapsulated Dibenzo-18-Crown-6 Ether. Mass Spectrometry Letters, 2016, 7, 96-101.	0.5	2
93	Examination of Various Metal Ion Sources for Reducing Nonspecific Zinc finger-Zn <sup>2+</sup> -Complex Formation in ESI Mass Spectrometry. Mass Spectrometry Letters, 2012, 3, 82-85.	0.5	2
94	New free radical-initiated peptide sequencing (FRIPS) mass spectrometry reagent with high conjugation efficiency enabling single-step peptide sequencing. Scientific Reports, 2022, 12, .	1.6	2
95	High Accuracy Mass Measurement Approach in the Identification of Phospholipids in Lipid Extracts: 7 T Fourier-transform Mass Spectrometry and MS/MS Validation. Bulletin of the Korean Chemical Society, 2011, 32, 1170-1178.	1.0	1
96	Abnormal behaviors in the calibration curves of liquid chromatography-tandem mass spectrometry occurring in the quantitative analysis of surfactants near critical micelle concentrations. Journal of Mass Spectrometry, 2021, 56, e4599.	0.7	0