Dilshadbek T Usmanov

List of Publications by Year in descending order

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128 papers 3,001 citations

172457 29 h-index 206112 48 g-index

128 all docs

128 docs citations

times ranked

128

1658 citing authors

#	Article	IF	CITATIONS
1	Comparative study of H3O+ (aq) and NH4+ (aq) on electrophoresis, protonating ability, and sodiation of proteins. International Journal of Mass Spectrometry, 2022, 471, 116728.	1.5	5
2	Negative-mode mass spectrometric study on dc corona, ac corona and dielectric barrier discharge ionization in ambient air containing H2O2, 2,4,6-trinitrotoluene (TNT), and 1,3,5-trinitroperhydro-1,3,5-triazine (RDX). International Journal of Mass Spectrometry, 2021, 459, 116440.	1.5	10
3	Development of surface ionization mass spectrometry for detection of stimulants in human urine. European Journal of Mass Spectrometry, 2021, 27, 29-38.	1.0	6
4	Reaction of CO3â^' $\hat{a} \in \Phi$ with trinitrotoluene (TNT) in CO2 plasma: Experimental and theoretical study on the formation of [TNTÂ+ O]â^' $\hat{a} \in \Phi$ and its fragmentation pathways. International Journal of Mass Spectrometry, 2021, 467, 116622.	1.5	2
5	Corona Discharge and Field Electron Emission in Ambient Air Using a Sharp Metal Needle: Formation and Reactivity of CO ₃ ^{â^'•} and O ₂ ^{a^'a€¢} . Mass Spectrometry, 2021, 10, A0100-A0100.	0.6	2
6	Direct detection of morphine in human urine by surface-ionization mass spectrometry. European Journal of Mass Spectrometry, 2020, 26, 153-157.	1.0	13
7	Rapid desorption of lowâ€volatility compounds in liquid droplets accompanied by the flash evaporation of solvent below the Leidenfrost temperature. Rapid Communications in Mass Spectrometry, 2020, 34, e8535.	1.5	2
8	Point Analysis of Foods by Sheath-Flow Probe Electrospray Ionization/Mass Spectrometry (sfPESI/MS) Coupled with a Touch Sensor. Journal of Agricultural and Food Chemistry, 2020, 68, 418-425.	5.2	9
9	Flash desorption of lowâ€volatility compounds deposited on a heated solid substrate (90°C) by dripping liquid methanol. Rapid Communications in Mass Spectrometry, 2020, 34, e8949.	1.5	3
10	Examination of the effect of air atmosphere on heterogeneous reactions under surface ionization of psychotropic drug molecules. European Journal of Mass Spectrometry, 2020, 26, 409-418.	1.0	0
11	Robotic sheath-flow probe electrospray ionization/mass spectrometry (sfPESI/MS): development of a touch sensor for samples in a multiwell plastic plate. Analytical Methods, 2020, 12, 2812-2819.	2.7	4
12	Pulsed Nano-Electrospray Ionization with a High Voltage (4000 V) Pulse Applied to Solutions in the Range of 200 ns to $1\mathrm{ms}$. Journal of the American Society for Mass Spectrometry, 2020, 31 , $693-699$.	2.8	9
13	A novel contrast of the reactions of 2,4,6-trinitrotoluene (TNT) in atmospheric-pressure O2 and N2 plasma: Experimental and theoretical study. International Journal of Mass Spectrometry, 2020, 450, 116308.	1.5	5
14	Probe Electrospray Ionization (PESI) and Its Modified Versions: Dipping PESI (dPESI), Sheath-Flow PESI (sfPESI) and Adjustable sfPESI (ad-sfPESI). Mass Spectrometry, 2020, 9, A0092-A0092.	0.6	17
15	Sheath-flow probe electrospray ionization (sfPESI) mass spectrometry for the rapid forensic analysis of human body fluids. Analytical Methods, 2019, 11, 3633-3640.	2.7	9
16	Component Profiling in Agricultural Applications Using an Adjustable Acupuncture Needle for Sheath-Flow Probe Electrospray Ionization/Mass Spectrometry. Journal of Agricultural and Food Chemistry, 2019, 67, 3275-3283.	5.2	12
17	Probe electrospray ionization of mixture solutions using metal needles with different tip conditions. Surface and Interface Analysis, 2019, 51, 100-104.	1.8	2
18	Dipping probe electrospray ionization/mass spectrometry for direct on-site and low-invasive food analysis. Food Chemistry, 2018, 260, 53-60.	8.2	16

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19	Remote sampling mass spectrometry for dry samples: Sheathâ€flow probe electrospray ionization (PESI) using a gelâ€loading tip inserted with an acupuncture needle. Rapid Communications in Mass Spectrometry, 2018, 32, 407-413.	1.5	14
20	Electrospray Generated from the Tip-Sealed Fine Glass Capillary Inserted with an Acupuncture Needle Electrode. Journal of the American Society for Mass Spectrometry, 2018, 29, 2297-2304.	2.8	5
21	Identification of Copper(II)–Lactate Complexes in Cu ₂ O Electrodeposition Baths: Deprotonation of the α-Hydroxyl Group in Highly Concentrated Alkaline Solution. Journal of the Electrochemical Society, 2018, 165, D444-D451.	2.9	16
22	Non-proximate mass spectrometry using a heated 1-m long PTFE tube and an air-tight APCI ion source. Analytica Chimica Acta, 2017, 973, 59-67.	5.4	10
23	Analysis of fluorene and 9,9-dialkylfluorenes by electrospray droplet impact (EDI)/SIMS. International Journal of Mass Spectrometry, 2017, 419, 29-36.	1.5	O
24	Pulsed probe electrospray and nano-electrospray: the temporal profiles of ion formation from the Taylor cone. Analytical Methods, 2017, 9, 4958-4963.	2.7	7
25	Ionization Methods Originated from Penning Ionization. Journal of the Mass Spectrometry Society of Japan, 2017, 65, 107-113.	0.1	O
26	Desorption in Mass Spectrometry. Mass Spectrometry, 2017, 6, S0059-S0059.	0.6	9
27	Nitrogen incorporation in saturated aliphatic C6–C8 hydrocarbons and ethanol in lowâ€pressure nitrogen plasma generated by a hollow cathode discharge ion source. Journal of Mass Spectrometry, 2016, 51, 446-452.	1.6	6
28	Lowâ€pressure barrier discharge ion source using air as a carrier gas and its application to the analysis of drugs and explosives. Journal of Mass Spectrometry, 2016, 51, 132-140.	1.6	17
29	Discontinuous atmospheric pressure interface for mass spectrometry using a solenoid pulse valve. Rapid Communications in Mass Spectrometry, 2016, 30, 1870-1874.	1.5	8
30	Gaseous ion formation by the cavitation occurred between aqueous solutions and the ultrasonically vibrating blade studied by mass spectrometry. International Journal of Mass Spectrometry, 2016, 411, 34-39.	1.5	4
31	Mass spectrometric monitoring of oxidation of aliphatic C6–C8 hydrocarbons and ethanol in low pressure oxygen and air plasmas. Journal of Mass Spectrometry, 2016, 51, 1187-1195.	1.6	10
32	Desorption of low-volatility compounds induced by dynamic friction between microdroplets and an ultrasonically vibrating blade. Analyst, The, 2016, 141, 1398-1404.	3.5	11
33	Probe Electrospray Ionization Mass Spectrometry with Discontinuous Atmospheric Pressure Interface. European Journal of Mass Spectrometry, 2015, 21, 327-334.	1.0	20
34	Atmospheric pressure chemical ionization of explosives using alternating current corona discharge ion source. Journal of Mass Spectrometry, 2015, 50, 651-661.	1.6	22
35	Detection of explosives using a hollow cathode discharge ion source. Rapid Communications in Mass Spectrometry, 2015, 29, 601-610.	1.5	18
36	Piezoelectric inkjet assisted rapid electrospray ionization mass spectrometric analysis of metabolites in plant single cells via a direct sampling probe. Analyst, The, 2014, 139, 5734-5739.	3.5	30

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37	Desorption Mass Spectrometry for Nonvolatile Compounds Using an Ultrasonic Cutter. Journal of the American Society for Mass Spectrometry, 2014, 25, 1177-1180.	2.8	17
38	Direct analysis of anabolic steroids in urine using Leidenfrost phenomenon assisted thermal desorption-dielectric barrier discharge ionization mass spectrometry. Analytica Chimica Acta, 2014, 839, 1-7.	5.4	32
39	Leidenfrost Phenomenon-assisted Thermal Desorption (LPTD) and Its Application to Open Ion Sources at Atmospheric Pressure Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2013, 24, 341-347.	2.8	35
40	Direct detection of trace level illicit drugs in human body fluids by probe electrospray ionization mass spectrometry (PESI-MS). Analytical Methods, 2013, 5, 4731.	2.7	43
41	Threshold behaviour of ion formation for noble metals (Au, Ag, Cu, Pt) irradiated by 4ns 532nm laser. International Journal of Mass Spectrometry, 2013, 341-342, 45-51.	1.5	4
42	Development of sheathâ€flow probe electrospray ionization (SFâ€PESI). Journal of Mass Spectrometry, 2013, 48, 823-829.	1.6	23
43	Development of highâ€pressure probe electrospray ionization for aqueous solution. Rapid Communications in Mass Spectrometry, 2013, 27, 68-74.	1.5	18
44	Real-time diagnosis of chemically induced hepatocellular carcinoma using a novel mass spectrometry-based technique. Analytical Biochemistry, 2013, 441, 32-37.	2.4	39
45	Fundamentals of Electrospray. , 2013, , 145-171.		4
46	Cluster SIMS., 2013, , 199-230.		5
47	Flash Desorption/Mass Spectrometry for the Analysis of Less- and Nonvolatile Samples Using a Linearly Driven Heated Metal Filament. Journal of the American Society for Mass Spectrometry, 2013, 24, 1727-1735.	2.8	29
48	Alternating current corona discharge/atmospheric pressure chemical ionization for mass spectrometry. Rapid Communications in Mass Spectrometry, 2013, 27, 2760-2766.	1.5	18
49	Estimation of useful yields for electrospray droplet impact/secondary ion mass spectrometry (EDI/SIMS). Surface and Interface Analysis, 2013, 45, 968-972.	1.8	11
50	Trace Level Detection of Explosives in Solution Using Leidenfrost Phenomenon Assisted Thermal Desorption Ambient Mass Spectrometry. Mass Spectrometry, 2013, 2, S0008-S0008.	0.6	30
51	Analysis of Renal Cell Carcinoma as a First Step for Developing Mass Spectrometry-Based Diagnostics. Journal of the American Society for Mass Spectrometry, 2012, 23, 1741-1749.	2.8	61
52	Waterâ€Soluble (Pterin)rhenium(I) Complex: Synthesis, Structural Characterization, and Two Reversible Protonation–Deprotonation Behavior in Aqueous Solutions. European Journal of Inorganic Chemistry, 2012, 2012, 4801-4810.	2.0	16
53	Online Electrospray Ionization Mass Spectrometric Monitoring of Protease-Catalyzed Reactions in Real Time. Journal of the American Society for Mass Spectrometry, 2012, 23, 728-735.	2.8	19
54	Mass spectrometry of rhenium complexes: a comparative study by using LDIâ€MS, MALDIâ€MS, PESIâ€MS and ESIâ€MS. Journal of Mass Spectrometry, 2012, 47, 313-321.	1.6	22

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55	Innovations in Analytical Oncology - Status quo of Mass Spectrometry-Based Diagnostics for Malignant Tumor. Journal of Analytical Oncology, 2012, 1, 74-80.	0.1	11
56	Development of double cylindrical dielectric barrier discharge ion source. Analyst, The, 2011, 136, 1210.	3. 5	23
57	Determination and analysis of opiates in complex mixtures by surface-ionization mass spectrometry. Journal of Surface Investigation, 2011, 5, 503-507.	0.5	3
58	Sequential and Exhaustive Ionization of Analytes with Different Surface Activity by Probe Electrospray Ionization. Journal of the American Society for Mass Spectrometry, 2011, 22, 1493-1500.	2.8	65
59	Detection of protein from detergent solutions by probe electrospray ionization mass spectrometry (PESIâ€MS). Journal of Mass Spectrometry, 2011, 46, 967-975.	1.6	44
60	Development of ambient sampling chemi/chemical ion source with dielectric barrier discharge. Journal of Mass Spectrometry, 2010, 45, 861-869.	1.6	34
61	Analysis of omnoponum by surface-ionization mass spectrometry and liquid chromatography tandem mass spectrometry methods. Journal of Pharmaceutical and Biomedical Analysis, 2010, 53, 1058-1062.	2.8	8
62	Realâ€time reaction monitoring by probe electrospray ionization mass spectrometry. Rapid Communications in Mass Spectrometry, 2010, 24, 1507-1513.	1.5	43
63	Quantitative Aspects of Atmospheric-Pressure Penning Ionization. Journal of the Mass Spectrometry Society of Japan, 2010, 58, 211-213.	0.1	10
64	Development of a Remote-from-Plasma Dielectric Barrier Discharge Ion Source and Its Application to Explosives. Journal of the Mass Spectrometry Society of Japan, 2010, 58, 215-220.	0.1	15
65	Detection of biomolecules from solutions with high concentration of salts using probe electrospray and nano-electrospray ionization mass spectrometry. Analytical Methods, 2010, 2, 1905.	2.7	76
66	Vapor phase detection of hydrogen peroxide with ambient sampling chemi/chemical ionization mass spectrometry. Analytical Methods, 2010, 2, 897.	2.7	18
67	Physical properties of the probe electrospray ionization (PESI) needle applied to the biological samples. Journal of Mass Spectrometry, 2009, 44, 978-985.	1.6	59
68	Ambient imaging mass spectrometry by electrospray ionization using solid needle as sampling probe. Journal of Mass Spectrometry, 2009, 44, 1469-1477.	1.6	105
69	Direct profiling of phytochemicals in tulip tissues and in vivo monitoring of the change of carbohydrate content in tulip bulbs by probe electrospray ionization mass spectrometry. Journal of the American Society for Mass Spectrometry, 2009, 20, 2304-2311.	2.8	59
70	Mass Spectrometric Detection of Gaseous Hydrogen Peroxide in Ambient Air Using Dielectric Barrier Discharge as an Excitation Source. Chemistry Letters, 2009, 38, 520-521.	1.3	20
71	Direct and Real-Time Surface Analysis and Imaging of Biological Samples by Probe Electrospray. Journal of Surface Analysis (Online), 2009, 15, 279-282.	0.1	8
72	Application of probe electrospray to direct ambient analysis of biological samples. Rapid Communications in Mass Spectrometry, 2008, 22, 2366-2374.	1.5	66

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73	Cluster ion formation of alkali halides by electrospray droplet impact. International Journal of Mass Spectrometry, 2008, 269, 95-100.	1.5	15
74	Characteristics of Probe Electrospray Generated from a Solid Needle. Journal of Physical Chemistry B, 2008, 112, 11164-11170.	2.6	79
75	Sputtering source of cluster ions and surface-ionization source of polyatomic ions of organic compounds. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 234-237.	1.4	1
76	Development of probe electrospray using a solid needle. Rapid Communications in Mass Spectrometry, 2007, 21, 3139-3144.	1.5	282
77	Detection and analysis of nitrogen-containing pesticides in environment by surface-ionization methods. Surface and Interface Analysis, 2006, 38, 309-312.	1.8	4
78	Atmospheric-pressure Penning ionization of aliphatic hydrocarbons. Rapid Communications in Mass Spectrometry, 2006, 20, 3213-3222.	1.5	21
79	Application of surface ionization methods for highly sensitive and selective analysis of benzodiazepine derivatives. Journal of Pharmaceutical and Biomedical Analysis, 2005, 37, 1125-1133.	2.8	10
80	Surface-Ionization Mass Spectrometry of Opium Alkaloids. Chemistry of Natural Compounds, 2003, 39, 489-494.	0.8	9
81	Gas-phase ion/molecule reactions in octafluorocyclobutane. Journal of Chemical Physics, 2002, 116, 7574-7582.	3.0	15
82	Characteristic Changes of Bond Energies for Gas-Phase Cluster Ions of Halide Ions with Methane and Chloromethanes. Journal of Physical Chemistry A, 2001, 105, 4887-4893.	2.5	41
83	Hydrogen bonds in gas-phase clusters between halide ions and olefins. Journal of the American Society for Mass Spectrometry, 2001, 12, 144-149.	2.8	15
84	Hydrogen plasma etching method for depth analysis by x-ray photoelectron spectroscopy. Surface and Interface Analysis, 2000, 29, 596-601.	1.8	4
85	A comparative study of laser spray and electrospray. Rapid Communications in Mass Spectrometry, 2000, 14, 1558-1562.	1.5	24
86	On the Structure and Stability of Gas-Phase Cluster Ions SiF3+(CO)n, SiF3OH2+(SiF4)n, SiF4H+(SiF4)n, and F-(SiF4)n. Journal of Physical Chemistry A, 2000, 104, 8353-8359.	2.5	6
87	Electric field assisted thermal desorption ionization using an infrared laser. , 1999, 13, 2428-2430.		2
88	Experimental and Theoretical Studies of Gas-Phase Ion/Molecule Reactions in SiF4Forming SiFm+(SiF4)nClusters (m= 0a^3 andn= 0a^2). Journal of Physical Chemistry A, 1999, 103, 568-572.	2.5	10
89	Why Is Ethylene Missing in the Coma of the Comets Hyakutake and Hale-Bopp?. Journal of the Mass Spectrometry Society of Japan, 1999, 47, 382-385.	0.1	1
90	Gas-Phase Polymerization Reactions Induced by the C2H+m Ions (m=3-5) in Ethene Journal of the Mass Spectrometry Society of Japan, 1999, 47, 67-71.	0.1	1

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91	A new liquid chromatography/mass spectrometry interface: laser spray. Rapid Communications in Mass Spectrometry, 1998, 12, 1170-1174.	1.5	26
92	How is the Fluoride Ion Bound to O2, N2, and CO Molecules?. Journal of Physical Chemistry A, 1998, 102, 6916-6920.	2.5	8
93	Anomalous Change of Bond Energies in the Cluster Ion N2H+(H2)n. Journal of Physical Chemistry A, 1998, 102, 1214-1218.	2.5	17
94	Formation of the trimer ion core in the heterogeneous rare gas cluster ions. Journal of Chemical Physics, 1998, 108, 6689-6697.	3.0	5
95	Gas-Phase Ion-Molecule Reactions in Tetrahydrothiophene Journal of the Mass Spectrometry Society of Japan, 1998, 46, 442-447.	0.1	O
96	Explosive Vaporization of a Liquid Water Beam by Irradiation with a 10.6 \hat{l} 4m Infrared Laser. Rapid Communications in Mass Spectrometry, 1997, 11, 474-478.	1.5	17
97	Bond energy oscillation in the cluster ion NO+(NO)n. Journal of Chemical Physics, 1996, 105, 9068-9071.	3.0	11
98	Gas-Phase Stability and Structure of the Cluster Ions CF3+(CO)n, CF3+(N2)n, CF3+(CF4)n, and CF4H+(CF4)n. The Journal of Physical Chemistry, 1996, 100, 5245-5251.	2.9	17
99	Formation of the (M+H)+ and Abundant Fragment lons of Methyl Stearate under Low Energy Electron lonization Conditions Journal of the Mass Spectrometry Society of Japan, 1996, 44, 531-541.	0.1	2
100	Gas-phase stability of cluster ions SF m + (SF6) n with m = $0\hat{a}$ €"5 and n = $1\hat{a}$ €"3. Journal of the American Society for Mass Spectrometry, 1995, 6, 1137-1142.	2.8	7
101	Electrochemical Reduction and Highly-Sensitive Analysis of Iodine in Electrospray Mass Spectrometry Journal of the Mass Spectrometry Society of Japan, 1995, 43, 77-83.	0.1	11
102	Low-energy Ar neutral beam etching method for x-ray photoelectron spectroscopy. Surface and Interface Analysis, 1994, 21, 778-784.	1.8	8
103	Gasâ€phase solvation of NO+, O+2, N2O+, N2OH+, and H3O+ with N2O. Journal of Chemical Physics, 1994, 101, 4073-4082.	3.0	12
104	Species-selectivity effects in the production of electrospray ions. Rapid Communications in Mass Spectrometry, 1993, 7, 363-373.	1.5	22
105	Application of electrospray ionization to the observation of higher fullerene anions. Rapid Communications in Mass Spectrometry, 1993, 7, 1077-1081.	1.5	22
106	Diamond film characterization by analyzing C 1s peak shapes with X-ray photo-electron spectroscopy Bunseki Kagaku, 1993, 42, 133-140.	0.2	3
107	Formation of the chelate bonds in the cluster Oâ^2(CO2)n, COâ^3(CO2)n, and NOâ^2(CO2)n. Journal of Chemical Physics, 1992, 97, 643-650.	3.0	21
108	Observation of the fullerene anions C60â^' and C70â^' by electrospray ionization. Rapid Communications in Mass Spectrometry, 1992, 6, 254-256.	1.5	40

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109	Negative-mode electrospray-mass spectrometry using nonaqueous solvents. Rapid Communications in Mass Spectrometry, 1992, 6, 265-268.	1.5	29
110	How are ions formed from electrosprayed charged liquid droplets?. Rapid Communications in Mass Spectrometry, 1992, 6, 463-468.	1.5	19
111	On the formation of the isomeric cluster ions (CO)+n. Journal of Chemical Physics, 1991, 94, 2697-2703.	3.0	14
112	Stability and structure of benzene dimer cation (C6H6)+2in the gas phase. Journal of Chemical Physics, 1991, 95, 8413-8418.	3.0	50
113	Cluster ions: Gasâ€phase stabilities of NO+(O2)n and NO+(CO2)n with n=1–5. Journal of Chemical Physics, 1991, 95, 6800-6805.	3.0	19
114	Electrospray interface for liquid chromatography/mass spectrometry. Rapid Communications in Mass Spectrometry, 1990, 4, 519-526.	1.5	35
115	Stability of rare gas cluster ions. Journal of Chemical Physics, 1990, 92, 4408-4416.	3.0	53
116	Temperature dependence of reactions of N+4 and N+3 with O2 in the range 552–64 K. Journal of Chemical Physics, 1989, 91, 6071-6076.	3.0	15
117	Isotope effect and nature of bonding in the cluster ions H+3(Ar)n and D+3(Ar)n. Journal of Chemical Physics, 1989, 91, 4821-4826.	3.0	48
118	Stabilities of the N3+(N2)n cluster ions with n=1–11. Chemical Physics Letters, 1989, 154, 139-142.	2.6	18
119	Formation and stabilities of cluster ions Ar+n. Journal of Chemical Physics, 1989, 90, 7143-7149.	3.0	77
120	How are nitrogen molecules bound to NO+2 and NO+?. Journal of Chemical Physics, 1989, 90, 3268-3273.	3.0	23
121	A determination of the stabilities of N+2(N2)n and O+2(N2)n with n=1–11 from measurements of the gasâ€phase ion equilibria. Journal of Chemical Physics, 1988, 88, 7709-7714.	3.0	84
122	A determination of the stabilities of O+2(O2)n and Oâ^2(O2)n with n=1â \in "8 from measurements of the gasâ \in phase ion equilibria. Journal of Chemical Physics, 1988, 89, 3190-3194.	3.0	88
123	A determination of the stabilities of H+3(H2)n with n=1–9 from measurements of the gasâ€phase ion equilibria H+3(H2)nâ~'1 +H2=H+3(H2)n. Journal of Chemical Physics, 1987, 87, 4048-4055.	3.0	107
124	Stability and structure of cluster ions: Halide ions with CO2. Journal of Chemical Physics, 1987, 87, 3647-3652.	3.0	35
125	A determination of the stabilities and structures of Fâ^'(C6H6) and Fâ^'(C6F6) clusters. Journal of Chemical Physics, 1987, 86, 4102-4105.	3.0	57
126	Temperature dependent slow reactions of C2H6+ with C2H6 Journal of the Mass Spectrometry Society of Japan, 1981, 29, 267-275.	0.1	0

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127	Gas-Phase Ion-Molecule Reactions and High-Pressure Mass Spectrometer. Journal of the Mass Spectrometry Society of Japan, 1977, 25, 199-210.	0.1	2
128	Measurements of Plasma Parameters in \hat{l}_{\pm} High-Frequency Glow Discharge Using the Orifice Probe. Japanese Journal of Applied Physics, 1971, 10, 339-344.	1.5	13