

Barbara Chiavarino

List of Publications by Year in descending order

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104
all docs

104
docs citations

104
times ranked

1526
citing authors

#	ARTICLE	IF	CITATIONS
1	Infrared Fingerprint of Protonated Benzene in the Gas Phase. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 2057-2059.	13.8	87
2	Probing the Compound I-like Reactivity of a Bare High-Valent Oxo Iron Porphyrin Complex: The Oxidation of Tertiary Amines. <i>Journal of the American Chemical Society</i> , 2008, 130, 3208-3217.	13.7	84
3	Determination of sulfonamide antibiotics by gas chromatography coupled with atomic emission detection. <i>Biomedical Applications</i> , 1998, 706, 269-277.	1.7	73
4	Meisenheimer Complexes Positively Characterized as Stable Intermediates in the Gas Phase. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 1995-1998.	13.8	68
5	Interaction of Cisplatin with Adenine and Guanine: A Combined IRMPD, MS/MS, and Theoretical Study. <i>Journal of the American Chemical Society</i> , 2013, 135, 1445-1455.	13.7	64
6	Gas-Phase Ion Chemistry of Borazine, an Inorganic Analogue of Benzene. <i>Journal of the American Chemical Society</i> , 1999, 121, 11204-11210.	13.7	63
7	$\tilde{\nu}$ -Complex Structure of Gaseous Benzene ⁺ NO Cations Assayed by IR Multiple Photon Dissociation Spectroscopy. <i>Journal of the American Chemical Society</i> , 2006, 128, 12553-12561.	13.7	55
8	Cysteine radical cation: A distonic structure probed by gas phase IR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 9794.	2.8	55
9	Applications of Infrared Multiple Photon Dissociation (IRMPD) to the Detection of Posttranslational Modifications. <i>Chemical Reviews</i> , 2020, 120, 3261-3295.	47.7	51
10	IR Spectroscopic Features of Gaseous C ₇ H ₇ O ⁺ Ions: Benzylum versus Tropylium Ion Structures. <i>Journal of Physical Chemistry A</i> , 2006, 110, 9352-9360.	2.5	50
11	IR spectroscopy of protonated toluene: Probing ring hydrogen shifts in gaseous arenium ions. <i>International Journal of Mass Spectrometry</i> , 2006, 249-250, 149-154.	1.5	49
12	Naked Five-Coordinate Fe(III)(NO) Porphyrin Complexes: Vibrational and Reactivity Features. <i>Inorganic Chemistry</i> , 2011, 50, 4445-4452.	4.0	47
13	Infrared spectroscopy of copper-resveratrol complexes: A joint experimental and theoretical study. <i>Journal of Chemical Physics</i> , 2012, 137, 024307.	3.0	46
14	Molecular Complexes of Simple Anions with Electron-Deficient Arenes: Spectroscopic Evidence for Two Types of Structural Motifs for Anion-Arene Interactions. <i>Chemistry - A European Journal</i> , 2009, 15, 8185-8195.	3.3	44
15	Infrared spectroscopy of isolated nucleotides. 1. The cyclic 3',5'-adenosine monophosphate anion. <i>International Journal of Mass Spectrometry</i> , 2008, 270, 111-117.	1.5	43
16	Cation- π Interactions in Protonated Phenylalkylamines. <i>Journal of Physical Chemistry A</i> , 2014, 118, 7130-7138.	2.5	42
17	Discrimination of 4-Hydroxyproline Diastereomers by Vibrational Spectroscopy of the Gaseous Protonated Species. <i>Journal of Physical Chemistry B</i> , 2012, 116, 8771-8779.	2.6	41
18	Binding of gaseous Fe(III)-heme cation to model biological molecules: Direct association and ligand transfer reactions. <i>Journal of the American Society for Mass Spectrometry</i> , 2005, 16, 589-598.	2.8	40

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19	Vibrational Signatures of the Naked Aqua Complexes from Platinum(II) Anticancer Drugs. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3631-3635.	4.6	39
20	Gas-Phase Dioxygen Activation by Binuclear Manganese Clusters. <i>Chemistry - A European Journal</i> , 2002, 8, 2740.	3.3	38
21	Benzylum versus Tropylium Ion Dichotomy: Vibrational Spectroscopy of Gaseous C ₈ H ₉ ⁺ Ions. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4947-4949.	13.8	38
22	Electrophilic Substitution of Gaseous Borazine. <i>Journal of the American Chemical Society</i> , 1999, 121, 2619-2620.	13.7	37
23	Interaction of Cisplatin with 5 ^α -dGMP: A Combined IRMPD and Theoretical Study. <i>Inorganic Chemistry</i> , 2015, 54, 3513-3522.	4.0	37
24	Unravelling the Intrinsic Features of NO Binding to Iron(II)- and Iron(III)-Hemes. <i>Inorganic Chemistry</i> , 2008, 47, 7792-7801.	4.0	36
25	IR spectrum of the protonated neurotransmitter 2-phenylethylamine: dispersion and anharmonicity of the NH ₃ ⁺ δ - π interaction. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25742-25754.	2.8	34
26	Direct Probe of NO Vibration in the Naked Ferric Heme Nitrosyl Complex. <i>ChemPhysChem</i> , 2008, 9, 826-828.	2.1	33
27	Cisplatin Binding to Biological Ligands Revealed at the Encounter Complex Level by IR Action Spectroscopy. <i>Chemistry - A European Journal</i> , 2016, 22, 3794-3803.	3.3	33
28	Cisplatin Primary Complex with α -Histidine Target Revealed by IR Multiple Photon Dissociation (IRMPD) Spectroscopy. <i>ChemPhysChem</i> , 2017, 18, 318-325.	2.1	33
29	Infrared Spectroscopy of Protonated Phenylsilane in the Gas Phase. <i>ChemPhysChem</i> , 2005, 6, 437-440.	2.1	32
30	Serine O-sulfation probed by IRMPD spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25891-25904.	2.8	32
31	S-nitrosation of cysteine as evidenced by IRMPD spectroscopy. <i>International Journal of Mass Spectrometry</i> , 2012, 330-332, 160-167.	1.5	31
32	Kinetic control in the CID-induced elimination of H ₃ PO ₄ from phosphorylated serine probed using IRMPD spectroscopy. <i>Chemical Communications</i> , 2014, 50, 3845-3848.	4.1	30
33	Cisplatin and transplatin interaction with methionine: bonding motifs assayed by vibrational spectroscopy in the isolated ionic complexes. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26697-26707.	2.8	26
34	Infrared spectroscopy of nucleotides in the gas phase 2. The protonated cyclic 3 β ,5 β -adenosine monophosphate. <i>RSC Advances</i> , 2013, 3, 12711.	3.6	25
35	Protonated Heme. <i>Chemistry - A European Journal</i> , 2007, 13, 776-785.	3.3	24
36	IR Signature of NO Binding to a Ferrous Heme Center. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2414-2417.	4.6	24

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37	Brønsted-Acid Behavior of C ₆ (H,D) ⁷⁺ Benzenium Ions. A Combined Approach by Radiolytic, FA-SIFT, and FT-ICR Methodologies. <i>The Journal of Physical Chemistry</i> , 1996, 100, 16201-16208.	2.9	23
38	Radiolytic Silylation of Alkenes and Alkynes by Gaseous R ₃ Si ⁺ Ions. Stereochemical Evidence for the β -Silyl Effect. <i>Journal of the American Chemical Society</i> , 1998, 120, 1523-1527.	13.7	22
39	IR ion spectroscopy in a combined approach with MS/MS and IM-MS to discriminate epimeric anthocyanin glycosides (cyanidin 3-O-glucoside and -galactoside). <i>International Journal of Mass Spectrometry</i> , 2019, 444, 116179.	1.5	22
40	Infrared Absorption Features of Gaseous Isopropyl Carbocations. <i>ChemPhysChem</i> , 2004, 5, 1679-1685.	2.1	21
41	Tyrosine nitration as evidenced by IRMPD spectroscopy. <i>International Journal of Mass Spectrometry</i> , 2011, 308, 209-216.	1.5	21
42	IRMPD spectroscopy of protonated S-nitrosocaptopril, a biologically active, synthetic amino acid. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 13455.	2.8	20
43	Vibrational Signatures of <i>S</i> -Nitrosoglutathione as Gaseous, Protonated Species. <i>Journal of Physical Chemistry B</i> , 2014, 118, 12371-12382.	2.6	20
44	Short-lived intermediates (encounter complexes) in cisplatin ligand exchange elucidated by infrared ion spectroscopy. <i>International Journal of Mass Spectrometry</i> , 2019, 435, 7-17.	1.5	20
45	Amino Acid Oxidation: A Combined Study of Cysteine Oxo Forms by IRMPD Spectroscopy and Simulations. <i>Chemistry - A European Journal</i> , 2016, 22, 17239-17250.	3.3	19
46	Insights into Cisplatin Binding to Uracil and Thiouracils from IRMPD Spectroscopy and Tandem Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 946-960.	2.8	19
47	The Protonation of Gaseous Cyclopropane. <i>Chemistry - A European Journal</i> , 2001, 7, 2916-2921.	3.3	17
48	Elusive Sulfurous Acid: Gas-Phase Basicity and IR Signature of the Protonated Species. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1605-1610.	4.6	17
49	Undervalued N ₃ Coordination Revealed in the Cisplatin Complex with 2'-Deoxyadenosine-5'-monophosphate by a Combined IRMPD and Theoretical Study. <i>Inorganic Chemistry</i> , 2017, 56, 8793-8801.	4.0	17
50	Complexation of halide ions to tyrosine: role of non-covalent interactions evidenced by IRMPD spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 4429-4441.	2.8	16
51	Gas-Phase H/D Exchange between Arenium Ions and Selected Bases. The Site of Protonation of Simple Aromatics. <i>Journal of the American Chemical Society</i> , 1998, 120, 10856-10862.	13.7	15
52	Infrared Fingerprint of Protonated Benzene in the Gas Phase. <i>Angewandte Chemie</i> , 2003, 115, 2103-2105.	2.0	15
53	Binding motifs of cisplatin interaction with simple biomolecules and aminoacid targets probed by IR ion spectroscopy. <i>Pure and Applied Chemistry</i> , 2020, 92, 3-13.	1.9	14
54	The Deprotonation of Benzyl Alcohol Radical Cations: A Mechanistic Dichotomy in the Gas Phase as in Solution. <i>Chemistry - A European Journal</i> , 2002, 8, 532-537.	3.3	13

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55	Cyanide-Arene Meisenheimer Complex Generated in Electrospray Ionization Mass Spectrometry Using Acetonitrile as a Solvent. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 1603-1607.	2.8	13
56	Effects of Aromatic Fluorine Substitution on Protonated Neurotransmitters: The Case of 2-Phenylethylamine. <i>Chemistry - A European Journal</i> , 2016, 22, 8124-8136.	3.3	13
57	[Arene-Me ₃ C ⁺] non-covalent complexes in the gas-phase (trifluoro)methylation of tert-butyl-substituted diphenylalkanes. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1995, 148, 215-228.	1.8	12
58	Aromatic Silylation of (Trimethylgermyl)benzene by Gaseous Me ₃ Si ⁺ Ions via Me ₃ Ge ⁺ Displacement. <i>Organometallics</i> , 1995, 14, 2624-2626.	2.3	12
59	Gas-Phase Reactivity of Organosilane Radical Cations. An FT-ICR Study. <i>Organometallics</i> , 2000, 19, 844-848.	2.3	12
60	Protonated Sulfuric Acid: Vibrational Signatures of the Naked Ion in the Near- and Mid-IR. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1721-1724.	4.6	12
61	A Gas-Phase Study of the Ionic Alkylation of Benzocycloalkenes. <i>Journal of the American Chemical Society</i> , 2000, 122, 5397-5398.	13.7	11
62	Metabolic profiling of different wild and cultivated <i>Allium</i> species based on high-resolution mass spectrometry, high-performance liquid chromatography-photodiode array detector, and color analysis. <i>Journal of Mass Spectrometry</i> , 2020, 55, e4525.	1.6	11
63	Cation-π Interactions in the Gas Phase Methylation of 1,1-Diphenylalkanes. <i>Journal of Physical Chemistry A</i> , 2003, 107, 4619-4624.	2.5	10
64	Mid-IR Spectroscopy and Structural Features of Protonated Carbonic Acid in the Gas Phase. <i>ChemPhysChem</i> , 2009, 10, 520-522.	2.1	10
65	Halide adducts of 1,3,5-trinitrobenzene: Vibrational signatures and role of anion-π interactions. <i>International Journal of Mass Spectrometry</i> , 2013, 354-355, 62-69.	1.5	10
66	Cation-π interactions in gaseous π-phenylalkyloxonium ions. <i>International Journal of Mass Spectrometry</i> , 2004, 235, 145-154.	1.5	9
67	Chemistry of protonated species in gaseous environments. <i>Journal of Physical Organic Chemistry</i> , 2004, 17, 957-966.	1.9	9
68	Communication: Vibrational study of a benzyl carbanion: Deprotonated 2,4-dinitrotoluene. <i>Journal of Chemical Physics</i> , 2012, 137, 181101.	3.0	9
69	IR spectroscopy of gaseous fluorocarbon ions: The perfluoroethyl anion. <i>Chemical Physics</i> , 2012, 398, 118-123.	1.9	9
70	Structure and Reactivity of Protonated 1,1,1-Trifluorotoluene in the Gas Phase. A Combined FT-ICR, Radiolytic, and ab Initio MO Study. <i>The Journal of Physical Chemistry</i> , 1996, 100, 19859-19863.	2.9	8
71	Isomeric C ₅ H ₁₁ Si ⁺ ions from the trimethylsilylation of acetylene: An experimental and theoretical study. <i>International Journal of Mass Spectrometry</i> , 2013, 334, 58-66.	1.5	8
72	Intrinsic Properties of Nitric Oxide Binding to Ferrous and Ferric Hemes. <i>Croatica Chemica Acta</i> , 2014, 87, 307-314.	0.4	8

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73	Vibrational signatures of curcumin's chelation in copper(II) complexes: An appraisal by IRMPD spectroscopy. <i>Journal of Chemical Physics</i> , 2019, 150, 165101.	3.0	8
74	Binding ofazole drugs to heme: A combined MS/MS and computational approach. <i>Polyhedron</i> , 2015, 90, 245-251.	2.2	7
75	From Preassociation to Chelation: A Survey of Cisplatin Interaction with Methionine at Molecular Level by IR Ion Spectroscopy and Computations. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 2206-2217.	2.8	7
76	Molecular Basis for the Remarkably Different Gas-Phase Behavior of Deprotonated Thyroid Hormones Triiodothyronine (T3) and Reverse Triiodothyronine (rT3): A Clue for Their Discrimination?. <i>Analytical Chemistry</i> , 2021, 93, 14869-14877.	6.5	7
77	Gas phase regioselectivity in the deprotonation of p-cresol radical cation. <i>Chemical Physics Letters</i> , 2003, 372, 183-186.	2.6	6
78	Site-selectivity of protonation in gaseous toluene. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 5507.	2.8	6
79	Communication: Infrared spectroscopy of protonated allyl-trimethylsilane: Evidence for the \hat{I}^2 -silyl effect. <i>Journal of Chemical Physics</i> , 2013, 139, 071102.	3.0	6
80	Real time evolution of unprotected protonated galactosamine probed by IRMPD spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8737-8743.	2.8	6
81	Probing Bare High-Valent Transition Oxo-Metal Complexes: An Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Study of Reactive Intermediates. <i>European Journal of Mass Spectrometry</i> , 2010, 16, 407-414.	1.0	5
82	N-nitrosation of N-acetyltryptophan probed by IR spectroscopy of the gaseous anion. <i>Chemical Physics Letters</i> , 2013, 588, 215-219.	2.6	5
83	Exploring the Conformational Variability in the Heme b Propionic Acid Side Chains through the Effect of a Biological Probe: A Study of the Isolated Ions. <i>Journal of Physical Chemistry B</i> , 2015, 119, 1919-1929.	2.6	5
84	Molecular Properties of Bare and Microhydrated Vitamin B5-Calcium Complexes. <i>International Journal of Molecular Sciences</i> , 2021, 22, 692.	4.1	5
85	Cation-Cation Interactions between a Noble Metal and a Polyfunctional Aromatic Ligand: Ag ⁺ (benzylamine). <i>Chemistry - A European Journal</i> , 2022, 28, .	3.3	5
86	The trimethylsilylation of acetylene. <i>Chemical Communications</i> , 2002, , 1418-1419.	4.1	4
87	Gas-Phase Protonation of Benzocycloalkenes. <i>European Journal of Mass Spectrometry</i> , 2004, 10, 881-887.	1.0	4
88	IRMPD signature of protonated pantothenic acid, an ubiquitous nutrient. <i>Chemical Physics Letters</i> , 2016, 646, 162-167.	2.6	4
89	Can an Elusive Platinum(III) Oxidation State be Exposed in an Isolated Complex?. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15595-15598.	13.8	3
90	Binding Motifs in the Naked Complexes of Target Amino Acids with an Excerpt of Antitumor Active Biomolecule: An Ion Vibrational Spectroscopy Assay. <i>Chemistry - A European Journal</i> , 2021, 27, 2348-2360.	3.3	3

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91	Tandem Mass Spectrometry of Nitric Oxide and Hydrogen Sulfide Releasing Aspirins: A Hint into Activity Behavior. <i>Mass Spectrometry</i> , 2013, 2, A0017-A0017.	0.6	2
92	Nitrosyl-heme and anion-arene complexes: structure, reactivity and spectroscopy. <i>Pure and Applied Chemistry</i> , 2015, 87, 379-390.	1.9	2
93	IRMPD Spectroscopy of Bare Monodeprotonated Genistein, an Antioxidant Flavonoid. <i>ACS Omega</i> , 0, , .	3.5	2
94	Vibrational signatures of gaseous Meisenheimer complexes bonded at carbon and nitrogen. <i>International Journal of Mass Spectrometry</i> , 2017, 418, 173-179.	1.5	1
95	Can an Elusive Platinum(III) Oxidation State be Exposed in an Isolated Complex?. <i>Angewandte Chemie</i> , 2020, 132, 15725-15728.	2.0	1
96	IRMPD Spectra of Protonated Hydroxybenzaldehydes: Evidence of Torsional Barriers in Carboxonium Ions. <i>ChemPhysChem</i> , 2020, 21, 749-761.	2.1	1
97	Chemistry of Protonated Species in Gaseous Environments. <i>ChemInform</i> , 2005, 36, no.	0.0	0
98	Unprotected Galactosamine as a Dynamic Key for a Cyclochiral Lock. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 736-743.	2.8	0
99	Ligation Motifs in Zinc-Bound Sulfonamide Drugs Assayed by IR Ion Spectroscopy. <i>Molecules</i> , 2022, 27, 3144.	3.8	0