# Ricardo B Metz

List of Publications by Year
in descending order

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| 56 | 1,612 | 279798 | 315739 |
|---|---|---|---|
| papers | citations | 23 | 38 |
| | | h-index | g-index |

| 58 | 58 | 58 | 944 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Selectively breaking either bond in the bimolecular reaction of HOD with hydrogen atoms. Journal of Chemical Physics, 1993, 99, 1744-1751. | 3.0 | 121 |
| 2 | Mode- and Bond-Selective Reactions of Chlorine Atoms with Highly Vibrationally Excited H2O and HOD. The Journal of Physical Chemistry, 1995, 99, 13748-13754. | 2.9 | 80 |
| 3 | Vibrationally resolved photofragment spectroscopy of FeO+. Journal of Chemical Physics, 1999, 111, 1433-1437. | 3.0 | 67 |
| 4 | Vibrationally mediated photodissociation of isocyanic acid (HNCO): Preferential Nâ€“H bond fission by excitation of the reaction coordinate. Journal of Chemical Physics, 1996, 105, 6293-6303. | 3.0 | 65 |
| 5 | Direct determination of the ionization energies of FeO and CuO with VUV radiation. Journal of Chemical Physics, 2005, 123, 114313. | 3.0 | 64 |
| 6 | Electronic Spectroscopy and Photodissociation Dynamics of Hydrated Co2+Clusters:Â Co2+(H2O)n(n=) Tj ETQq0 0 0 rgBT /Overlock 10 | 2.5 | 58 |
| 7 | Photofragment spectroscopy of covalently bound transition metal complexes: a window into Câ€“H and Câ€“C bond activation by transition metal ions. International Reviews in Physical Chemistry, 2004, 23, 79-108. | 2.3 | 53 |
| 8 | Transition State Spectroscopy of Bimolecular Reactions Using Negative Ion Photodetachment. Advances in Chemical Physics, 2007, , 1-61. | 0.3 | 52 |
| 9 | Reactions of O, H, and Cl atoms with highly vibrationally excited HCN: Using product states to determine mechanisms. Journal of Chemical Physics, 1996, 104, 4490-4501. | 3.0 | 49 |
| 10 | Vibrational Spectroscopy of Intermediates in Methane-to-Methanol Conversion by FeO+. Journal of Physical Chemistry A, 2010, 114, 5104-5112. | 2.5 | 49 |
| 11 | Gas-phase photodissociation of AuCH2+: the dissociation threshold of jet-cooled and rotationally thermalized ions. Chemical Physics Letters, 2000, 318, 466-470. | 2.6 | 44 |
| 12 | Photodissociation Dynamics of Hydrated Ni2+ Clusters:â€‰ Ni2+(H2O)n (n = 4â^'7). Journal of Physical Chemistry A, 2000, 104, 8155-8159. | 2.5 | 44 |
| 13 | Electronic spectroscopy of intermediates involved in the conversion of methane to methanol by FeO+. Journal of Chemical Physics, 2002, 116, 4071-4078. | 3.0 | 40 |
| 14 | Photofragment Spectroscopy of Ï€ Complexes:Â Au+(C2H4) and Pt+(C2H4). Journal of Physical Chemistry A, 2004, 108, 6996-7002. | 2.5 | 40 |
| 15 | The reaction of chlorine atoms withhighly vibrationally excited HCN. Chemical Physics Letters, 1994, 221, 347-352. | 2.6 | 39 |
| 16 | The low-lying electronic states of FeO+: Rotational analysis of the resonance enhanced photodissociation spectra of the 6Î7/2â†Xâ€Š6Î£+ system. Journal of Chemical Physics, 2003, 119, 10194-10201. | 3.0 | 36 |
| 17 | Optical spectroscopy and photodissociation dynamics of multiply charged ions. International Journal of Mass Spectrometry, 2004, 235, 131-143. | 1.5 | 36 |
| 18 | Direct Determination of the Ionization Energies of PtC, PtO, and PtO<sub>2</sub> with VUV Radiation. Journal of Physical Chemistry A, 2008, 112, 9584-9590. | 2.5 | 36 |

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|---|---|---|---|
| 19 | Proton affinities of diacetylene, cyanoacetylene, and cyanogen. Journal of Chemical Physics, 1987, 86, 2334-2342. | 3.0 | 34 |
| 20 | Vibrational Spectroscopy and Theory of Fe<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (n = 1â^'4). Journal of Physical Chemistry A, 2010, 114, 11322-11329. | 2.5 | 30 |
| 21 | Photofragment Spectroscopy of FeCH2+, CoCH2+, and NiCH2+ near the M+â^'CH2 Dissociation Threshold. Journal of Physical Chemistry A, 2000, 104, 2020-2024. | 2.5 | 29 |
| 22 | Dissociation Energy and Electronic and Vibrational Spectroscopy of Co<sup>+</sup>(H<sub>2</sub>O) and Its Isotopomers. Journal of Physical Chemistry A, 2013, 117, 1254-1264. | 2.5 | 27 |
| 23 | Electronic and Vibrational Spectroscopy and Vibrationally Mediated Photodissociation of V+(OCO). Journal of Physical Chemistry A, 2006, 110, 5051-5057. | 2.5 | 26 |
| 24 | Vibrational Spectroscopy Reveals Varying Structural Motifs in Cu<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> and Ag<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (n = 1â€“6). Journal of Physical Chemistry A, 2015, 119, 9653-9665. | 2.5 | 24 |
| 25 | Photodissociation Studies of the Electronic and Vibrational Spectroscopy of Ni+(H2O). Journal of Physical Chemistry A, 2012, 116, 1344-1352. | 2.5 | 23 |
| 26 | Vacuum Ultraviolet Photoionization Studies of PtCH<sub>2</sub> and Hâ€Ptâ€CH<sub>3</sub>: A Potential Energy Surface for the Pt+CH<sub>4</sub> Reaction. Angewandte Chemie - International Edition, 2013, 52, 888-891. | 13.8 | 23 |
| 27 | A velocity map imaging mass spectrometer for photofragments of fast ion beams. Review of Scientific Instruments, 2018, 89, 014102. | 1.3 | 23 |
| 28 | Probing the new bond in the vibrationally controlled bimolecular reaction of O with HOD(4Î½OH). Journal of Chemical Physics, 2000, 113, 7982-7987. | 3.0 | 22 |
| 29 | Photofragment Spectroscopy and Dynamics of NiOH+and NiOH+(H2O). Journal of Physical Chemistry A, 2000, 104, 9901-9905. | 2.5 | 22 |
| 30 | Salt-Bridge Transition State for the Charge Separation Co(H2O)42+ â†' CoOH(H2O)2+ + H3O+. Journal of Physical Chemistry A, 2003, 107, 1760-1762. | 2.5 | 21 |
| 31 | Electronic spectroscopy and photodissociation dynamics of Co2+â€“methanol clusters: Co2+(CH3OH)n(n = 4â€“7). Physical Chemistry Chemical Physics, 2005, 7, 814-818. | 2.8 | 21 |
| 32 | Vacuum-Ultraviolet Photoionization Measurement and ab Initio Calculation of the Ionization Energy of Gas-Phase SiO<sub>2</sub>. Journal of Physical Chemistry A, 2009, 113, 1225-1230. | 2.5 | 21 |
| 33 | Vibrational spectroscopy of intermediates in benzene-to-pheno conversion by FeO<sup>+</sup>. Journal of the American Society for Mass Spectrometry, 2010, 21, 750-757. | 2.8 | 21 |
| 34 | Vibrational Spectroscopy of Co<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> and Ni<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (n = 1â€“4). Journal of Physical Chemistry A, 2014, 118, 3253-3265. | 2.5 | 21 |
| 35 | Comparison of IRMPD, Ar-tagging and IRLAPS for vibrational spectroscopy of Ag+(CH3OH). International Journal of Mass Spectrometry, 2010, 297, 41-45. | 1.5 | 20 |
| 36 | Electronic and vibrational spectroscopy of intermediates in methane-to-methanol conversion by CoO+. Journal of Chemical Physics, 2011, 135, 084311. | 3.0 | 17 |

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|---|---|---|---|
| 37 | Vibrational spectroscopy and theory of Fe<sub>2</sub><sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (n = 1â€“3). Physical Chemistry Chemical Physics, 2015, 17, 25700-25704. | 2.8 | 17 |
| 38 | Consecutive ion/molecule condensation reactions and photodissociation mechanisms of condensation ions in polyacetylenic compounds. International Journal of Mass Spectrometry and Ion Processes, 1985, 65, 181-196. | 1.8 | 15 |
| 39 | Mode selective photodissociation dynamics in V+(OCO). Journal of Chemical Physics, 2008, 128, 024307. | 3.0 | 15 |
| 40 | Vibrational Spectroscopy of Fe<sub>3</sub><sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (n = 1â€“3) and Fe<sub>4</sub><sup>+</sup>(CH<sub>4</sub>)<sub>4</sub>. Journal of Physical Chemistry A, 2017, 121, 2132-2137. | 2.5 | 15 |
| 41 | Electronic spectroscopy of predissociative states of platinum oxide cation. Chemical Physics Letters, 2003, 376, 588-594. | 2.6 | 14 |
| 42 | Photofragment imaging and electronic spectroscopy of Al2+. Journal of Chemical Physics, 2018, 148, 214308. | 3.0 | 14 |
| 43 | Photodissociation spectra of transition metal sulfides: spinâ€“orbit structure in charge transfer bands of FeS+ and NiS+. Chemical Physics Letters, 2001, 342, 75-84. | 2.6 | 12 |
| 44 | Photofragment Imaging, Spectroscopy, and Theory of MnO<sup>+</sup>. Journal of Physical Chemistry A, 2018, 122, 8047-8053. | 2.5 | 12 |
| 45 | Microsolvation of Co2+ and Ni2+ by acetonitrile and water: photodissociation dynamics of M2+(CH3CN)n(H2O)m. Physical Chemistry Chemical Physics, 2011, 13, 18347. | 2.8 | 10 |
| 46 | Vibrational Spectroscopy of Cr<sup>+</sup>(NH<sub>3</sub>)<sub>n</sub> (n = 1â€“6) Reveals Coordination and Hydrogen-Bonding Motifs. Journal of Physical Chemistry A, 2019, 123, 4929-4936. | 2.5 | 10 |
| 47 | Probing Reactivity of Gold Atoms with Acetylene and Ethylene with VUV Photoionization Mass Spectrometry and Ab Initio Studies. Journal of Physical Chemistry A, 2019, 123, 2194-2202. | 2.5 | 10 |
| 48 | Vibrational Spectroscopy of Intermediates and Câ€“H Activation Products of Sequential Zr<sup>+</sup> Reactions with CH<sub>4</sub>. Journal of Physical Chemistry A, 2020, 124, 8235-8245. | 2.5 | 10 |
| 49 | Near ultraviolet photodissociation spectroscopy of Mn+(H2O) and Mn+(D2O). Journal of Chemical Physics, 2014, 141, 204305. | 3.0 | 9 |
| 50 | Exciton energy transfer reveals spectral signatures of excited states in clusters. Physical Chemistry Chemical Physics, 2020, 22, 14284-14292. | 2.8 | 5 |
| 51 | Energies and Wave Functions for Several One-Dimensional Potentials. Journal of Chemical Education, 2004, 81, 157. | 2.3 | 4 |
| 52 | Photodissociation Spectroscopy and Dissociation Dynamics of TiO<sup>+</sup>(CO<sub>2</sub>). Journal of Physical Chemistry A, 2009, 113, 6253-6259. | 2.5 | 4 |
| 53 | Bond dissociation energy and electronic spectroscopy of Cr+(NH3) and its isotopomers. Journal of Chemical Physics, 2018, 149, 174301. | 3.0 | 4 |
| 54 | Structures of M<sup>+</sup>(CH<sub>4</sub>)<sub>n</sub> (M = Ti, V) Based on Vibrational Spectroscopy and Density Functional Theory. Journal of Physical Chemistry A, 2021, 125, 4143-4151. | 2.5 | 4 |

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|---|---|---|---|
| 55 | Bonding, Thermodynamics, and Dissociation Dynamics of NiO<sup>+</sup> and NiS<sup>+</sup> Determined by Photofragment Imaging and Theory. Journal of Physical Chemistry A, 2021, 125, 7425-7436. | 2.5 | 4 |
| 56 | Salt-Bridge Transition State for the Charge Separation Co(H2O)2+4 â†' CoOH(H2O)+2 + H3O+. ChemInform, 2003, 34, no. | 0.0 | 0 |