

# Ricardo B Metz

## List of Publications by Year in descending order

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56  
papers

1,612  
citations

279798

23  
h-index

315739

38  
g-index

58  
all docs

58  
docs citations

58  
times ranked

944  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structures of $M^+(CH_4)_n$ ( $M = Ti, V$ ) Based on Vibrational Spectroscopy and Density Functional Theory. <i>Journal of Physical Chemistry A</i> , 2021, 125, 4143-4151.	2.5	4
2	Bonding, Thermodynamics, and Dissociation Dynamics of $NiO^+$ and $NiS^+$ Determined by Photofragment Imaging and Theory. <i>Journal of Physical Chemistry A</i> , 2021, 125, 7425-7436.	2.5	4
3	Vibrational Spectroscopy of Intermediates and $C-H$ Activation Products of Sequential $Zr^+$ Reactions with $CH_4$ . <i>Journal of Physical Chemistry A</i> , 2020, 124, 8235-8245.	2.5	10
4	Exciton energy transfer reveals spectral signatures of excited states in clusters. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14284-14292.	2.8	5
5	Vibrational Spectroscopy of $Cr^+(NH_3)_n$ ( $n = 1-6$ ) Reveals Coordination and Hydrogen-Bonding Motifs. <i>Journal of Physical Chemistry A</i> , 2019, 123, 4929-4936.	2.5	10
6	Probing Reactivity of Gold Atoms with Acetylene and Ethylene with VUV Photoionization Mass Spectrometry and Ab Initio Studies. <i>Journal of Physical Chemistry A</i> , 2019, 123, 2194-2202.	2.5	10
7	A velocity map imaging mass spectrometer for photofragments of fast ion beams. <i>Review of Scientific Instruments</i> , 2018, 89, 014102.	1.3	23
8	Bond dissociation energy and electronic spectroscopy of $Cr^+(NH_3)$ and its isotopomers. <i>Journal of Chemical Physics</i> , 2018, 149, 174301.	3.0	4
9	Photofragment Imaging, Spectroscopy, and Theory of $MnO^+$ . <i>Journal of Physical Chemistry A</i> , 2018, 122, 8047-8053.	2.5	12
10	Photofragment imaging and electronic spectroscopy of $Al_2^+$ . <i>Journal of Chemical Physics</i> , 2018, 148, 214308.	3.0	14
11	Vibrational Spectroscopy of $Fe_3^+(CH_4)_n$ ( $n = 1-3$ ) and $Fe_4^+(CH_4)_n$ ( $n = 1-4$ ). <i>Journal of Physical Chemistry A</i> , 2017, 121, 2132-2137.	2.5	15
12	Vibrational Spectroscopy Reveals Varying Structural Motifs in $Cu^+(CH_4)_n$ and $Ag^+(CH_4)_n$ ( $n = 1-6$ ). <i>Journal of Physical Chemistry A</i> , 2015, 119, 9653-9665.	2.5	24
13	Vibrational spectroscopy and theory of $Fe_2^+(CH_4)_n$ ( $n = 1-3$ ). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25700-25704.	2.8	17
14	Near ultraviolet photodissociation spectroscopy of $Mn^+(H_2O)$ and $Mn^+(D_2O)$ . <i>Journal of Chemical Physics</i> , 2014, 141, 204305.	3.0	9
15	Vibrational Spectroscopy of $Co^+(CH_4)_n$ and $Ni^+(CH_4)_n$ ( $n = 1-4$ ). <i>Journal of Physical Chemistry A</i> , 2014, 118, 3253-3265.	2.5	21
16	Vacuum Ultraviolet Photoionization Studies of $PtCH_2$ and $H_2PtCH_3$ : A Potential Energy Surface for the $Pt+CH_4$ Reaction. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 888-891.	13.8	23
17	Dissociation Energy and Electronic and Vibrational Spectroscopy of $Co^+(H_2O)$ and Its Isotopomers. <i>Journal of Physical Chemistry A</i> , 2013, 117, 1254-1264.	2.5	27
18	Photodissociation Studies of the Electronic and Vibrational Spectroscopy of $Ni^+(H_2O)$ . <i>Journal of Physical Chemistry A</i> , 2012, 116, 1344-1352.	2.5	23

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19	Microsolvation of $\text{Co}^{2+}$ and $\text{Ni}^{2+}$ by acetonitrile and water: photodissociation dynamics of $\text{M}^{2+}(\text{CH}_3\text{CN})_n(\text{H}_2\text{O})_m$ . <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18347.	2.8	10
20	Electronic and vibrational spectroscopy of intermediates in methane-to-methanol conversion by $\text{CoO}^+$ . <i>Journal of Chemical Physics</i> , 2011, 135, 084311.	3.0	17
21	Vibrational spectroscopy of intermediates in benzene-to-phenol conversion by $\text{FeO}^+$ . <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 750-757.	2.8	21
22	Comparison of IRMPD, Ar-tagging and IRLAPS for vibrational spectroscopy of $\text{Ag}^+(\text{CH}_3\text{OH})$ . <i>International Journal of Mass Spectrometry</i> , 2010, 297, 41-45.	1.5	20
23	Vibrational Spectroscopy and Theory of $\text{Fe}^+(\text{CH}_4)_n$ ( $n = 1-4$ ). <i>Journal of Physical Chemistry A</i> , 2010, 114, 11322-11329.	2.5	30
24	Vibrational Spectroscopy of Intermediates in Methane-to-Methanol Conversion by $\text{FeO}^+$ . <i>Journal of Physical Chemistry A</i> , 2010, 114, 5104-5112.	2.5	49
25	Photodissociation Spectroscopy and Dissociation Dynamics of $\text{TiO}^+(\text{CO})_2$ . <i>Journal of Physical Chemistry A</i> , 2009, 113, 6253-6259.	2.5	4
26	Vacuum-Ultraviolet Photoionization Measurement and ab Initio Calculation of the Ionization Energy of Gas-Phase $\text{SiO}_2$ . <i>Journal of Physical Chemistry A</i> , 2009, 113, 1225-1230.	2.5	21
27	Direct Determination of the Ionization Energies of PtC, PtO, and $\text{PtO}_2$ with VUV Radiation. <i>Journal of Physical Chemistry A</i> , 2008, 112, 9584-9590.	2.5	36
28	Mode selective photodissociation dynamics in $\text{V}^+(\text{OCO})$ . <i>Journal of Chemical Physics</i> , 2008, 128, 024307.	3.0	15
29	Transition State Spectroscopy of Bimolecular Reactions Using Negative Ion Photodetachment. <i>Advances in Chemical Physics</i> , 2007, , 1-61.	0.3	52
30	Electronic and Vibrational Spectroscopy and Vibrationally Mediated Photodissociation of $\text{V}^+(\text{OCO})$ . <i>Journal of Physical Chemistry A</i> , 2006, 110, 5051-5057.	2.5	26
31	Direct determination of the ionization energies of FeO and CuO with VUV radiation. <i>Journal of Chemical Physics</i> , 2005, 123, 114313.	3.0	64
32	Electronic spectroscopy and photodissociation dynamics of $\text{Co}^{2+}$ -methanol clusters: $\text{Co}^{2+}(\text{CH}_3\text{OH})_n$ ( $n = 4-7$ ). <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 814-818.	2.8	21
33	Photofragment spectroscopy of covalently bound transition metal complexes: a window into C-H and C-C bond activation by transition metal ions. <i>International Reviews in Physical Chemistry</i> , 2004, 23, 79-108.	2.3	53
34	Optical spectroscopy and photodissociation dynamics of multiply charged ions. <i>International Journal of Mass Spectrometry</i> , 2004, 235, 131-143.	1.5	36
35	Photofragment Spectroscopy of $\text{Au}^+(\text{C}_2\text{H}_4)$ and $\text{Pt}^+(\text{C}_2\text{H}_4)$ . <i>Journal of Physical Chemistry A</i> , 2004, 108, 6996-7002.	2.5	40
36	Energies and Wave Functions for Several One-Dimensional Potentials. <i>Journal of Chemical Education</i> , 2004, 81, 157.	2.3	4

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37	Salt-Bridge Transition State for the Charge Separation $\text{Co}(\text{H}_2\text{O})_2^{2+} \rightarrow \text{CoOH}(\text{H}_2\text{O})_2 + \text{H}_3\text{O}^+$ . ChemInform, 2003, 34, no.	0.0	0
38	Electronic spectroscopy of predissociative states of platinum oxide cation. Chemical Physics Letters, 2003, 376, 588-594.	2.6	14
39	Salt-Bridge Transition State for the Charge Separation $\text{Co}(\text{H}_2\text{O})_4^{2+} \rightarrow \text{CoOH}(\text{H}_2\text{O})_2 + \text{H}_3\text{O}^+$ . Journal of Physical Chemistry A, 2003, 107, 1760-1762.	2.5	21
40	The low-lying electronic states of $\text{FeO}^+$ : Rotational analysis of the resonance enhanced photodissociation spectra of the $\text{O}(\text{H}_2\text{O})_2^+$ system. Journal of Chemical Physics, 2003, 119, 10194-10201.	3.0	36
41	Electronic spectroscopy of intermediates involved in the conversion of methane to methanol by $\text{FeO}^+$ . Journal of Chemical Physics, 2002, 116, 4071-4078.	3.0	40
42	Electronic Spectroscopy and Photodissociation Dynamics of Hydrated $\text{Co}^{2+}$ Clusters: $\text{Co}^{2+}(\text{H}_2\text{O})_n (n=7-10)$ . Journal of Physical Chemistry A, 2000, 104, 9901-9905.	2.5	58
43	Photodissociation spectra of transition metal sulfides: spin-orbit structure in charge transfer bands of $\text{FeS}^+$ and $\text{NiS}^+$ . Chemical Physics Letters, 2001, 342, 75-84.	2.6	12
44	Gas-phase photodissociation of $\text{AuCH}_2^+$ : the dissociation threshold of jet-cooled and rotationally thermalized ions. Chemical Physics Letters, 2000, 318, 466-470.	2.6	44
45	Probing the new bond in the vibrationally controlled bimolecular reaction of O with $\text{HOD}(4\frac{1}{2}\text{OH})$ . Journal of Chemical Physics, 2000, 113, 7982-7987.	3.0	22
46	Photodissociation Dynamics of Hydrated $\text{Ni}^{2+}$ Clusters: $\text{Ni}^{2+}(\text{H}_2\text{O})_n (n = 4-7)$ . Journal of Physical Chemistry A, 2000, 104, 8155-8159.	2.5	44
47	Photofragment Spectroscopy and Dynamics of $\text{NiOH}^+$ and $\text{NiOH}(\text{H}_2\text{O})$ . Journal of Physical Chemistry A, 2000, 104, 9901-9905.	2.5	22
48	Photofragment Spectroscopy of $\text{FeCH}_2^+$ , $\text{CoCH}_2^+$ , and $\text{NiCH}_2^+$ near the $\text{M}^+\text{CH}_2$ Dissociation Threshold. Journal of Physical Chemistry A, 2000, 104, 2020-2024.	2.5	29
49	Vibrationally resolved photofragment spectroscopy of $\text{FeO}^+$ . Journal of Chemical Physics, 1999, 111, 1433-1437.	3.0	67
50	Vibrationally mediated photodissociation of isocyanic acid ( $\text{HNCO}$ ): Preferential N-H bond fission by excitation of the reaction coordinate. Journal of Chemical Physics, 1996, 105, 6293-6303.	3.0	65
51	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
52	Mode- and Bond-Selective Reactions of Chlorine Atoms with Highly Vibrationally Excited $\text{H}_2\text{O}$ and $\text{HOD}$ . The Journal of Physical Chemistry, 1995, 99, 13748-13754.	2.9	80
53	The reaction of chlorine atoms with highly vibrationally excited HCN. Chemical Physics Letters, 1994, 221, 347-352.	2.6	39
54	Selectively breaking either bond in the bimolecular reaction of $\text{HOD}$ with hydrogen atoms. Journal of Chemical Physics, 1993, 99, 1744-1751.	3.0	121

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55	Proton affinities of diacetylene, cyanoacetylene, and cyanogen. <i>Journal of Chemical Physics</i> , 1987, 86, 2334-2342.	3.0	34
56	Consecutive ion/molecule condensation reactions and photodissociation mechanisms of condensation ions in polyacetylenic compounds. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1985, 65, 181-196.	1.8	15