

Publications in refereed journals

Indicators

h index	Number of papers published		Number of citations	
	Total	High impact (IF > 7)	Total	w/o self-citations
25	89	16	2,369	2,117

Web of Science, consulted April 28, 2022

Identifiers

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Key publications

1. Lushchikova, O.V.; Huitema, D. M. M.; López-Tarifa, P.; Visscher, L.; Jamshidi, Z.; Bakker, J.M.;
Structure Determination of Cationic Cu Clusters by IR Spectroscopy.
J. Phys. Chem. Lett. **10**, 2151 (2019)
 19 citations
2. Lang, S.M.; Bernhardt, T.M.; Chernyy, V.; Bakker, J.M.; Barnett, R.N.; Landman, U.
Selective C-H Bond Cleavage in Methane by Small Gold Clusters,
Angew. Chem. **56**, 13406 (2017)
 56 citations
3. Huismans, Y.; Rouzee, A.; Gijsbertsen, A.; Jungmann, J. H.; Smolkowska, A. S.; Logman, P. S. W. M.; Lepine, F.; Cauchy, C.; Zamith, S.; Marchenko, T.; Bakker, J.M.; Berden, G.; Redlich, B.; van der Meer, A. F. G.; Muller, H. G.; Vermin, W.; Schafer, K. J.; Spanner, M.; Ivanov, M. Yu.; Smirnova, O.; Bauer, D.; Popruzhenko, S. V.; Vrakking, M. J. J.
Time-resolved holography with photoelectrons
Science **331**, 61 (2011)
 405 citations
4. Bakker, J.M.; Besson T; Lemaire J; Scuderi D; Maître P;
Gas-phase structure of a π -allyl-palladium complex: efficient infrared spectroscopy in a 7T Fourier transform mass spectrometer
J. Phys. Chem. A **111**, 13415 (2007)
 134 citations
5. Bakker, J.M.; Aleese L.M.; Meijer, G.; von Helden G.;
Fingerprint IR spectroscopy to probe amino acid conformations in the gas phase
Phys. Rev. Lett. **91**, 203003 (2003)
 113 citations

Full publication list

89. Li, M.; Yang, T.; Bakker, J.M.; Janssens, E.; Hou, G.-L.
Unveiling the Recovery of C60-Supported Vanadium Single Atoms for Catalytic Overall Water Splitting
Cell Reports Physical Science, *accepted for publication* (2022)
88. Janssen, T.; Davies, C.S.; Gidding, M.; Chernyy, V.; Bakker, J.M.; Kirilyuk, A.
Cavity-Dumping a Single Infrared Pulse from a Free Electron Laser
Rev. Sci. Instr., *accepted for publication* (2022) doi: 10.1063/5.0081862
87. Lushchikova, O.V.; Reijmer, S.; Armentrout, P.B.; Bakker, J.M.
IR spectroscopic characterization of methane adsorption on copper clusters Cu_n⁺ (n = 2-4)
J. Am. Soc. Mass Spectrom., *accepted for publication* (2022), doi: 10.1021/jasms.2c00046
86. Bakker, J.M.; Mafuné, F.
Perspective: Zooming in on the initial stages of catalytic NO reduction using metal clusters
Phys. Chem. Chem. Phys. **24**, 7595-7610 (2022) doi: 10.1039/D1CP05760J
85. Zhang, Y.; Yamaguchi, M.; Kawada, K.; Kudoh, S.; Lushchikova, O.V.; Bakker, J.M.; Mafuné, F.
Adsorption Forms of NO on Iridium-doped Rhodium Clusters in the Gas Phase Revealed by Infrared Multiple Photon Dissociation Spectroscopy
J. Phys. Chem. A **126**, 36 (2022) doi: 10.1021/acs.jpca.1c08628
- 2021**
84. Lushchikova, O.V.; Szalay, M.; Tahmasbi, H.; Juurlink, L.B.F.; Meyer, J.Hözl, T.; Bakker, J.M.
IR spectroscopic characterization of the co-adsorption of CO₂ and H₂ onto cationic Cu_n⁺ clusters
Phys. Chem. Chem. Phys. **100**, 21 (2021), doi: 10.1039/d1cp03119h
83. Hou, G.-L.; Yang, T.; Li, M.; Vanbuel, J.; Lushchikova, O.V.; Ferrari, P.; Bakker, J.M.; Janssens, E.
Water Splitting by a C₆₀ Supported Single Vanadium Atom
Angew. Chem. **60**, 27095 (2021)
82. Yamaguchi, M.; Zhang, Y.; Lushchikova, O.V.; Bakker, J.M.; Mafuné, F.
Structures of Nitrogen Oxides Attached to Anionic Gold Clusters Au₄⁻ Revealed by Infrared Multiple Photon Dissociation Spectroscopy
J. Phys. Chem. C **125**, 9040 (2021)
81. Ferrari, P.; Delgado-Callico, L.; Lushchikova, O.V.; Hou, G.-L.; Baletto, F.; Bakker, J.M.; Janssens, E.
The size-dependent influence of palladium doping on the structures of cationic gold clusters
Nanoscale Adv. **3**, 6197 (2021), doi: 10.1039/D1NA00587A
80. Mafuné, F.; Bakker, J.M.; Kudoh, S.
Dissociative adsorption of NO introduces flexibility in gas phase Rh₆⁺ clusters leading to a rich isomeric distribution
Chem. Phys. Lett. **780**, 138937 (2021), doi: 10.1016/j.cplett.2021.138937
79. Lang, S.M.; Bernhardt, T.M.; Bakker, J.M.; Barnett, R. N.; Landman, U.;
Cluster Size Dependent Interaction of Free Manganese Oxide Clusters with Acetic Acid and Methyl Acetate
J. Phys. Chem. A **120**, 4435 (2021), doi: 10.1021/acs.jpca.1c03195
78. Roithová, J.; Bakker, J.M.;
Ion spectroscopy in methane activation
Mass Spectrom. Rev., *accepted for publication* (2022), doi: 10.1002/mas.21698
77. Bakker, J.M.; Owen, C.; Nooteboom, S.; Lushchikova, O.V.; Armentrout, P.B.;
Structural Characterization of M⁺CH₂ Products Formed by Reaction of 5d Metal Cations Pt⁺ and Ir⁺ with Ethylene Oxide and Ta⁺ with Methane using Messenger Spectroscopy
J. Mol. Spec. **378**, 111472 (2021), doi: 10.1016/j.jms.2021.111472
76. Lushchikova, O.V.; Tahmasbi, H.; Reijmer, S.; Platte, R.; Meyer, J.; Bakker, J.M.
IR spectroscopic characterization of H₂ adsorption on cationic Cu_n⁺ (n=4-7) clusters
J. Phys. Chem. A **125**, 2836 (2021), doi: 10.1021/acs.jpca.0c11527
75. Delgado-Callico, L.; Ferrari, P.; Bakker, J.M.; Baletto, F.; Janssens, E.;
Benchmarking density functional theory methods for modelling small metal-argon cationic complexes
Theor. Chem. Acc. **140**, 38 (2021)

74. Wiersma, S. D.; Candian, A.; Bakker, J.M.; Berden, G.; Oomens, J.; Tielens, A.G.G.M.; Petrignani, A. *IR photofragmentation of the Phenyl Cation: Spectroscopy and Fragmentation Pathways* Phys. Chem. Chem. Phys. **23**, 4334 (2021) doi: 10.1039/d0cp05554a

2020

73. Wensink, F.J.; Müntz, M.G.; Heller, J.; Ončák, M.; Bakker, J.M.; van der Linde, C. *IR multiple photon dissociation spectroscopy of MO_2^+ ($M = V, Nb, Ta$)* J. Chem. Phys. **153**, 171101 (2020), doi: 10.1063/5.0024675
72. Jamshidi, Z.; Lushchikova, O.V.; Bakker, J.M.; Visscher, L. *Not completely innocent: how argon binding perturbs cationic copper clusters* J. Phys. Chem. A **124**, 9004 (2020), doi: 10.1021/acs.jpca.0c07771
71. Lengyel, J.; Levin, N.G.; Wensink, F.J.; Lushchikova, O.V.; Landman, U.; Heiz, U.; Bakker, J.M.; Tschurl, M.; *Carbide Dihydrides: Carbonaceous Species Identified in Ta_4^+ -Mediated Methane Dehydrogenation* Angew. Chem. **59**, 23631 (2020), doi: 10.1002/anie.202010794
70. Lang, S.M.; Bernhardt, T.M.; Bakker, J.M.; Barnett, R. N.; Landman, U.; *Energetic Stabilization of Carboxylic Acid Conformers by Manganese Atoms and Clusters* J. Phys. Chem. A **124**, 4990 (2020), doi: 10.1021/acs.jpca.0c03315
69. Yamaguchi, M.; Zhang, Y.; Kudoh, S.; Koyama, K.; Lushchikova, O.V.; Bakker, J.M.; Mafuné, F. *Oxophilicity as a Descriptor for NO Cleavage Efficiency over Group IX Metal Clusters* J. Phys. Chem. Lett. **11**, 4408 (2020)
68. Ferrari, P.; Hou, G.L.; Lushchikova, O.V.; Calvo, F.; Bakker, J.M.; Janssens, E. *The structures of cationic gold clusters probed by far-infrared multiple photon dissociation spectroscopy* Phys. Chem. Chem. Phys. **10**, 1 (2020)
67. Zimmermann, N.; Bernhardt, T.M.; Bakker, J.M.; Barnett, R. N.; Landman, U.; Lang, S.M. *Infrared spectroscopy of gas phase $Mn_xO_y(CO_2)_z^+$ complexes* J. Phys. Chem. A **124**, 1561 (2020) doi: 10.1021/acs.jpca.9b11258
66. Wiersma, S. D.; Candian, A.; Bakker, J.M.; Martens, J. K.; Berden, G.; Oomens, J.; Buma, W. J.; Petrignani, A. *Photolysis-induced scrambling of PAHs as a mechanism for deuterium storage* Astron. Astrophys. **635**, A9 (2020) doi: 10.1051/0004-6361/201936982

2019

65. Zimmermann, N.; Bernhardt, T.M.; Bakker, J.M.; Landman, U.; Lang, S.M. *Infrared Photodissociation Spectroscopy of Di-Manganese Oxide Cluster Cations* Phys. Chem. Chem. Phys. **21**, 23922 (2019)
64. Armentrout, P.B.; Yang, F.; Stevenson, B.C.; Wensink, F.J.; Lushchikova, O.V.; Bakker, J.M. *Infrared Spectroscopy of Gold Carbene Cation ($AuCH_2^+$): Covalent or Dative Bonding?* J. Phys. Chem. A **123**, 8932 (2019) doi: 10.1021/acs.jpca.9b08049
63. Lang, S.M.; Bernhardt, T.M.; Bakker, J.M.; Yoon, B.; Landman, U. *Co-Adsorption of O_2 and C_2H_4 on a Free Gold Dimer Probed via Infrared Photodissociation Spectroscopy* J. Am. Soc. Mass Spectrom. **30**, 1895 (2019) doi: 10.1007/s13361-019-02259-7
62. Wheeler, O. W.; Coates, R. A.; Lapoutre, V. J. F.; Bakker, J.M.; Armentrout, P.B. *Metallacyclopropene Structures Identified by IRMPD Spectroscopic Investigation of the Dehydrogenation Reactions of Ta^+ and TaO^+ with Ethene* Int. J. Mass Spectrom. **442**, 83 (2019)
61. Lushchikova, O.V.; Huitema, D. M. M.; López-Tarifa, P.; Visscher, L.; Jamshidi, Z.; Bakker, J.M.; *Structure Determination of Cationic Cu Clusters by IR Spectroscopy* J. Phys. Chem. Lett. **10**, 2151 (2019)
60. Lang, S.M.; Bernhardt, T.M.; Bakker, J.M.; Yoon, B.; Landman, U. *Methanol C-O Bond Activation by Free Gold Clusters Probed via Infrared Photodissociation Spectroscopy* Z. Phys. Chem. **233**, 865 (2019) doi: 10.1515/zpch-2018-1368

59. Cremers, T.; Chefdeville, S.; Bakker, J.M.; Meerts, W.L.; Van de Meerakker, S.Y.T.
Direct Excitation of the Spin-Orbit Forbidden $X^2\Pi_{3/2} \rightarrow X^2\Pi_{1/2}$ Transition in NO Using the Intra-Cavity Free Electron Laser FELICE
Mol. Phys. **117**, 2941 (2019) doi: 10.1080/00268976.2019.1589008
58. Mafuné, F.; Koyama, K.; Nagata, T.; Kudoh, S.; Yasuike, T.; Miyajima, K.; Huitema, D. M. M.; Chernyy, V.; Bakker, J.M.;
Structures of Rhodium Oxide Cluster Cations $Rh_7O_m^+$ ($m = 4-7, 12, 14$) Revealed by Infrared Multiple Photon Dissociation Spectroscopy.
J. Phys. Chem. C **123** 5964 (2019)
57. Yamaguchi, M.; Kudoh, S.; Miyajima, K.; Lushchikova, O.; Bakker, J.M.; Mafuné, F.;
Tuning the Dissociative Action of Cationic Rh Clusters Towards NO by Substituting a Single Ta Atom
J. Phys. Chem. C **123** 3476 (2019)
56. Lang, S.M.; Bernhardt, T.M.; Bakker, J.M.; Yoon, B.; Landman, U.;
Selective C-H Bond Activation of Ethane by Free Gold Clusters.
Int. J. Mass Spectrom. **435** 241 (2019)
55. Wheeler, O. W.; Salem, M.; Gao, A.; Bakker, J.M.; Armentrout, P.B.;
Sequential Activation of Methane by Ir^+ : An IRMPD and Theoretical Investigation.
Int. J. Mass Spectrom. **435** 78 (2019)

2018

54. Bakker, J.M.; Jalink, J.; Dieleman, D.; Kirilyuk, A.
Structural determination of neutral Co_n clusters ($n = 4-10,13$) through IR-UV two-color vibrational spectroscopy and DFT calculations.
J. Phys. Cond. Matt. **30**, 494003 (2018)
53. Lang, S. M.; Bernhardt, T.M.; Bakker, J.M.; Yoon, B.; Landman, U.
The Interaction of Ethylene with Free Gold Cluster Cations: Infrared Photodissociation Spectroscopy Combined with Electronic and Vibrational Structure Calculations.
J. Phys. Cond. Matt. **30**, 504001 (2018)
52. Jia, M.; Tol, J. Van Der; Li, Y.; Chernyy, V.; Bakker, J.M.; Lê, N.; Tho, M.; Janssens, E.
Effect of Chromium Doping on the Magnetic Properties of Small Cationic Cobalt Clusters
J. Phys. Cond. Matt. **30**, 474002 (2018)
51. Nagata, T.; Kudoh, S.; Miyajima, K.; Bakker, J.M.; Mafuné, F.
Adsorption of Multiple NO Molecules on Rh_n^+ ($n = 6, 7$) Investigated by Infrared Multiple Photon Dissociation Spectroscopy
J. Phys. Chem. C **122** 22884 (2018)
50. Diaz Bachs, A.; Logemann, R.; Peters, L.; Chernyy, V.; Bakker, J.M.; Katsnelson, M.; Kirilyuk, A.
Magnetic Properties of Co Doped Nb Clusters
Phys. Rev. B **97** 134427 (2018)
49. Armentrout, P.B.; Kuijpers, S.; Lushchikova, O.V.; Hightower, R.; Boles, G. C.; Bakker, J.M.
Spectroscopic Identification of the Carbyne Hydride Structure of the Dehydrogenation Product of Methane Activation by Osmium Cations
J. Am. Soc. Mass Spectrom. **29** 1781 (2018).
48. Chernyy, V.; Logemann, R.; Kirilyuk, A.; Bakker, J.M.;
Direct IR Spectroscopic Detection of a Low-Lying Electronic State in a Metal Carbide Cluster
Chemphyschem **19** 1424 (2018).
47. Owen, C. J.; Boles, G. C.; Chernyy, V.; Bakker, J.M.; Armentrout, P.B.;
Structures of the Dehydrogenation Products of Methane Activation by 5d Transition Metal Cations Revisited: Deuterium Labeling
J. Chem. Phys. **148** 044307 (2018)

2017

46. Nagata, T.; Koyama, K.; Kudoh, S.; Miyajima, K.; Bakker, J.M.; Mafuné, F.
Adsorption Forms of NO on Rh_n^+ ($n = 6-16$) Revealed by Infrared Multiple Photon Dissociation Spectroscopy
J. Phys. Chem. C **121** 27417 (2017)
45. Decin, L.; Richards, A. M. S.; Waters, L. B. F. M.; Danilovich, T.; Gobrecht, D.; Khouri, T.; Homan, W.; Bakker, J.M.; Van de Sande, M.; Nuth, J. A.; De Beck, E.
Study of the Aluminium Content in AGB winds Using ALMA. Indications for the Presence of Gas-Phase $(Al_2O_3)_n$ Clusters
Astron. Astrophys. **608**, A55 (2017).
44. Lang, S.M.; Bernhardt, T.M.; Chernyy, V.; Bakker, J.M.; Barnett, R.N.; Landman, U.
Selective C-H Bond Cleavage in Methane by Small Gold Clusters,
Angew. Chem. **56** 13406 (2017)
43. van der Tol, J.; Jia, D.; Li, Y.; Chernyy, V.; Bakker, J.M.; Nguyen, M. T.; Lievens, P.; Janssens, E.
Structural Assignment of Small Cationic Silver Clusters by Far-Infrared Spectroscopy and DFT Calculations.
Phys. Chem. Chem. Phys. **19** 19360 (2017)

2016

42. Chernyy, V.; Logemann, R.; Bakker, J.M.; Kirilyuk, A.
Determination of the Geometric Structure of Neutral Niobium Carbide Clusters via Infrared Spectroscopy,
J. Chem. Phys. **145** 164305 (2016)
41. Koyama, K.; Nagata, T.; Kudoh, S.; Miyajima, K.; Huitema, D.; Chernyy, V.; Bakker, J.M.; Mafuné, F.
Geometrical Structures of Partially Oxidized Rhodium Cluster Cations, $Rh_6O_m^+$ ($m = 4, 5, 6$), Revealed by Infrared Multiple Photon Dissociation Spectroscopy
J. Phys. Chem. A **120**, 8599 (2016)
40. Wheeler, O. W.; Salem, M.; Gao, A.; Bakker, J.M.; Armentrout, P.B.
Activation of CH Bonds in $Pt^+ + xCH_4$ Reactions, Where $x = 1-4$: Identification of the Platinum Dimethyl Cation.
J. Phys. Chem. A **120** 6216 (2016)
39. Chernyy, V.; Logemann, R.; Bakker, J.M.; Kirilyuk, A.
The Repopulation of Electronic States upon Vibrational Excitation of Niobium Carbide Clusters.,
J. Chem. Phys. **145**, 024313 (2016)
38. Kiawi, D. M.; Chernyy, V.; Oomens, J.; Buma, W. J.; Jamshidi, Z.; Visscher, L.; Waters, L. B. F. M.; Bakker, J.M.
Water Dissociation upon Adsorption onto Free Iron Clusters Is Size Dependent,
J. Phys. Chem. Lett. **7**, 23812387 (2016)
37. Lang, S.M.; Bernhardt, T.M.; Kiawi, D. M.; Bakker, J.M.; Barnett, R. N.; Landman, U.,
Cluster Size and Composition Dependent Water Deprotonation by Free Manganese Oxide Clusters.
Phys. Chem. Chem. Phys. , **18** 15727 (2016)

2011 - 2015

36. Kiawi, D. M.; Bakker, J.M.; Oomens, J. ; Buma, W. J.; Jamshidi, Z.; Visscher, L. ; Waters, L. B. F. M.,
Water Adsorption on Free Cobalt Cluster Cations
J. Phys. Chem. A **119**, 10828 (2015)
35. Lang, S.M.; Bernhardt, T.M.; Kiawi, D. M.; Bakker, J.M.; Barnett, R. N.; Landman, U.
The interaction of water with free $Mn_4O_4^+$ clusters: Deprotonation and adsorption-induced structural transformations.
Angew. Chem. **54**, 15113 (2015)
34. Calvo, F.; Li, Y.; Kiawi, D. M.; Bakker, J.M.; Parneix, P.; Janssens, E.
Nonlinear effects in infrared action spectroscopy of silicon and vanadium oxide clusters: Experiment and kinetic modeling.
Phys. Chem. Chem. Phys. **17**, 25956 (2015)

33. Jalink, J.; Bakker, J.M.; Rasing, T.; Kirilyuk, A.
Channeling Vibrational Energy To Probe the Electronic Density of States in Metal Clusters
J. Phys. Chem. Lett. **6**, 750-754 (2015)
32. Lapoutre V.J.F.; Haertelt M; Meijer G; Fielicke A; Bakker, J.M..
IR spectroscopy of bare neutral transition metal clusters through thermionic emission
J. Chem. Phys. **139**, 121101 (2013)
31. Lapoutre, V.J.F.; Redlich, B.; van der Meer, A.F.G.; Oomens, J.; Bakker, J.M.; Sweeney, A.; Mookherjee, A.; Armentrout, P.B.;
Structures of the dehydrogenation products of methane activation by 5d transition metal cations
J. Phys. Chem. A . **117**(20):4115 (2013)
30. Cauchy, C.; Bakker, J.M.; Huismans, Y.; Rouzée, A.; Redlich, B., van der Meer, A. F. G.; Bordas, C.; Vrakking, M. J. J.; Lépine, F.,
Single-size thermometric measurements on a size distribution of neutral fullerenes
Phys. Rev. Lett. **110**, 193401 (2013)
29. Huismans Y, Rouzée A, Gijsbertsen A, Logman PSWM, Lépine F, Cauchy, C Zamith, S Stodolna, A. S. Jungmann, J.H.; Bakker, J.M.; Berden, G Redlich, B van der Meer, A.F. G. Schafer, K. J. Vrakking, M. J. J.
Photoelectron angular distributions from the ionization of xenon Rydberg states by midinfrared radiation
Phys. Rev. A **87**, 033413 (2013)
28. Huismans Y, Gijsbertsen A, Smolkowska A, Jungmann J, Rouzee A, Logman, P. Lepine, F Cauchy, C. Zamith, S. Marchenko, T.; Bakker, J.M.; Berden, G. Redlich, B. Van der Meer, A. F. G. Ivanov, M. Yu Yan, T.-M. M Bauer, D. Smirnova, O. Vrakking, M. J J
Scaling laws for photoelectron holography in the midinfrared wavelength regime
Phys. Rev. Lett. **109**, 13002 (2012)
27. Haertelt, M; Lapoutre, V.J.F.; Bakker, J.M.; Redlich B.; Fielicke A.; Meijer, G.;
Structure determination of anionic metal clusters via infrared resonance enhanced multiple photon electron detachment spectroscopy
J. Phys. Chem. Lett. **2**, 1720 (2011)
26. Huismans, Y.; Rouzee, A.; Gijsbertsen, A.; Jungmann, J. H.; Smolkowska, A. S.; Logman, P. S. W. M.; Lepine, F.; Cauchy, C.; Zamith, S.; Marchenko, T.; Bakker, J.M.; Berden, G.; Redlich, B.; van der Meer, A. F. G.; Muller, H. G.; Vermin, W.; Schafer, K. J.; Spanner, M.; Ivanov, M. Yu.; Smirnova, O.; Bauer, D.; Popuzhenko, S. V.; Vrakking, M. J. J.
Time-resolved holography with photoelectrons
Science **331**, 61 (2011)
25. Scuderi D, Bakker, J.M.; Durand S, Maître P; Sharma A.; Martens, J.K. Nicol, E Clavaguéra, C. Ohanessian, G
Structure of singly hydrated, protonated phospho-tyrosine
Int. J. Mass Spectrom. **308**, 338 (2011)
24. Bakker, J.M.; Redlich, B; van der Meer, A.F.G.; Oomens, J.
Infrared spectroscopy of gas-phase polycyclic aromatic hydrocarbon cations in the 10-50 μm spectral range
Astrophys. J. **741**, 74 (2011)
23. Van Zundert, G.C.P.; Jaeqx, S.; Berde, n G.; Bakker, J.M.; Kleinermanns, K.; Oomens, J.; Rijs, A. M.;
IR spectroscopy of isolated neutral and protonated adenine and 9-methyladenine
Chemphyschem **12**, 1921 (2011)

1999 - 2010

22. Bakker, J.M.; Lapoutre V.J.F.; Redlich B; Oomens J; Sartakov BG; Fielicke, A.; von Helden, G. Meijer, G. van der Meer, A. F. G.;
Intensity-resolved IR multiple photon ionization and fragmentation of C_{60}
J. Chem. Phys. **132**, 74305 (2010)
21. Ricks A.M.; Bakker, J.M.; Douberly G.E.; Duncan M.A.;
Infrared spectroscopy and structures of cobalt carbonyl cations, $\text{Co}(\text{CO})_n^+$ ($n = 1-9$)
J. Phys. Chem. A **113**, 4701 (2009)

20. Bakker, J.M.; Salpin J.-Y.; Maître, P.
Tautomerism of cytosine probed by gas phase IR spectroscopy
Int. J. Mass Spectrom. **283**, 214 (2009)
19. Bakker, J.M.; Sinha R.; Besson T.; Brugnara M.; Tosi P.; Salpin; J.-Y. Maître; P.;
Tautomerism of uracil probed via IR spectroscopy of singly hydrated protonated uracil
J. Phys. Chem. A **112**, 12393 (2008)
18. Stoll M; Bakker, J.M.; Steimle TC; Meijer, G.; Peters A.;
Cryogenic buffer-gas loading and magnetic trapping of CrH and MnH molecules
Phys. Rev. A A. **78**, 32707 (2008)
17. Bakker, J.M.; Besson T; Lemaire J; Scuderi D; Maître P.;
Gas-phase structure of a π -allyl-palladium complex: efficient infrared spectroscopy in a 7T Fourier transform mass spectrometer
J. Phys. Chem. A **111**, 13415 (2007)
16. Chen J.H.; Bakker, J.M.; Peters A; Stoll M; Meijer, G.; Steimle TC.;
The Zeeman tuning of the $A^6\Sigma_+ - X^6\Sigma_+$ transition of chromium monohydride
Phys. Chem. Chem. Phys. **9**, 949 (2007)

2006

15. Bakker, J.M.; Stoll M.; Weise D.R.; Vogelsang O.; Meijer G.; Peters A.;
Magnetic trapping of buffer-gas-cooled chromium atoms and prospects for the extension to paramagnetic molecules
J. Phys. B: At. Mol. Opt. Phys. **39**, S1111 (2006)
14. Bakker, J.M.; Plützer C, Hünig I, Häber T, Compagnon I.; von Helden, G. Meijer, G. Kleinermanns, K.;
Folding structures of isolated peptides as revealed by gas-phase mid-infrared spectroscopy
Chemphyschem **6**, 120 (2005)
13. Brauer B, Gerber RB, Kabelac M, Hobza P, Bakker, J.M.; Riziq, A. G. A.; de Vries, M.S.;
Vibrational spectroscopy of the GC base pair: experiment, harmonic and anharmonic calculations, and the nature of the anharmonic couplings
J. Phys. Chem. A **109**, 6974 (2005)
12. Compagnon I, Oomens J, Bakker, J.M.; Meijer, G.; von Helden G.;
Vibrational spectroscopy of a non-aromatic amino acid-based model peptide: identification of the gamma-turn motif of the peptide backbone
Phys. Chem. Chem. Phys. **7**, 13 (2005)
11. Çarçabal P, Kroemer RT, Snoek LC, Simons JP, Bakker, J.M.; Compagnon, I.; Meijer, G.; von Helden, G.
Hydrated complexes of tryptophan: ion dip infrared spectroscopy in the molecular fingerprint region, 100-2000 cm^{-1}
Phys. Chem. Chem. Phys. **6**, 4546 (2004)
10. Jockusch, R.A.; Kroemer, R.T.; Talbot, F.O.; Snoek, L.C.; Çarçabal; Simons, J. P. ;Havenith, M. ; Bakker, J.M.; Compagnon, I. ;Meijer, G.; von Helden, G.;
Probing the glycosidic linkage: UV and IR ion-dip spectroscopy of a lactoside
J. Am. Chem. Soc **126**, 5709 (2004)
9. Bakker, J.M.; Compagnon, I.; Meijer G.; von Helden G.; Kabelac M.; Hobza, P.; de Vries, M. S.
The mid-IR absorption spectrum of gas-phase clusters of the nucleobases guanine and cytosine
Phys. Chem. Chem. Phys. **6**, 2810 (2004)
8. Bakker, J.M.; Aleese L.M.; Meijer, G.; von Helden G.;
Fingerprint IR spectroscopy to probe amino acid conformations in the gas phase
Phys. Rev. Lett. **91**, 203003 (2003)
7. Bakker, J.M.; Mac Aleese L, von Helden G, Meijer G.;
The infrared absorption spectrum of the gas phase neutral benzoic acid monomer and dimer
J. Chem. Phys. **119**, 11180 (2003)

6. Oomens J, Bakker, J.M.; Sartakov BG, Meijer, G.; von Helden G.;
The infrared spectrum of the benzoyl cation
Chem. Phys. Lett. **367**, 576 (2003)
5. Satink R.G.; Bakker, J.M.; Meijer, G.; von Helden G.;
Vibrational lifetimes of aniline-noble gas complexes
Chem. Phys. Lett. **359**, 63 (2002)
4. Bakker, J.M.; Satink R.G.; von Helden G, Meijer G.;
Infrared photodissociation spectroscopy of benzene-Ne,Ar complex cation
Phys. Chem. Chem. Phys. **4**, 24 (2002)
3. Piest J.A.; Oomens J.; Bakker, J.M.; von Helden G.; Meijer G.;
Vibrational spectroscopy of gas-phase neutral and cationic phenanthrene in their electronic ground states
Spectrochim. Acta A-Molecular Biomol. Spectrosc. **57**, 717 (2001)
2. Chin A.H.; Bakker, J.M.; Kono J.;
Ultrafast electroabsorption at the transition between classical and quantum response
Phys. Rev. Lett. **85**, 3293 (2000)
1. Warntjes J.B.M.; Robicheaux F.; Bakker, J.M.; Noordam L.D.;
Autoionizing Rydberg states of NO in strong electric fields
J. Chem. Phys. **111**, 2556 (1999)

Popular

2. Lushchikova, O.V.; Bakker, J.M.
Katalytische principes testen met metaalclusters
NTvN **6**, 12 (2020)
1. Bakker, J.M.
Moleculair vouwwerk
NTvN **x**, x (2001)