

Network Publications

(publications involving one or more YRs of a single network node)

J. Agreiter, M. Frankowski, V.E. Bondybey.

Ionization and hydrolysis of dinitrogen pentoxide in low-temperature solids.

Fizika Nizkikh Temperatur 27 (2001) 1202-1207; Low Temp. Phys. 27 (9-10), 890-894 (2001).

E. V. Savchenko, O. N. Grigorashchenko, A. N. Ogurtsov, V. V. Rudenkov, M. Lorenz, M. Frankowski, A. M. Smith-Gicklhorn, V. E. Bondybey.

Thermally stimulated exoelectron emission from rare gas solids in weak external electric fields.

Journal of Luminescence 94, 475-481 (2001).

B. S. Fox, O. P. Balaj, I. Balteanu, M. K. Beyer, V. E. Bondybey.

Single molecule precipitation of transition metal(I) chlorides in water clusters.

J. Am. Chem. Soc. 124, 172-173 (2002).

A.M. Smith-Gicklhorn, M. Frankowski, V. E. Bondybey.

Tetracyanoethylene, its ions and ionic fragments.

Phys. Chem. Chem. Phys. 4, 1425-1431 (2002).

A.M. Smith-Gicklhorn, M. Lorenz, M. Frankowski, R. Kolos, V. E. Bondybey.

C₅N₂ revisited: mass-selective matrix isolation and DFT studies.

Chem. Phys. Lett. 351, 85-91 (2002).

B. S. Fox, I. Balteanu, O. P. Balaj, H. C. Liu, M. K. Beyer, V. E. Bondybey.

Black body radiation induced hydrogen formation in hydrated vanadium cations V⁺(H₂O)_n.

Phys. Chem. Chem. Phys. 4, 2224-2228 (2002).

E.V. Savchenko, O.N. Grigorashchenko, A.N. Ogurtsov, V.V. Rudenkov, M. Lorenz, A.M. Smith-Gicklhorn, M. Frankowski, V.E. Bondybey.

Thermally assisted emission of electrons and VUV photons from irradiated rare gas solids.

Surf. Rev. Lett. 9, 353-358 (2002).

E.V. Savchenko, O.N. Grigorashchenko, A.N. Ogurtsov, V.V. Rudenkov, G.B. Gumenchuk, M. Lorenz, M. Frankowski, A.M. Smith-Gicklhorn, V.E. Bondybey.

Photo- and thermally assisted emission of electrons from rare gas solids.

Surf. Science 507, 754-761 (2002).

B. S. Fox, O. P. Balaj, I. Balteanu, M. K. Beyer, V. E. Bondybey.

Aqueous chemistry of transition metals in oxidation state +I.

Chem. Eur. J. 8, 5534-5540 (2002).

E.V. Savchenko, O.N. Grigorashchenko, G.B. Gumenchuk, A.N. Ogurtsov, M. Frankowski, A.M. Smith-Gicklhorn, V.E. Bondybey.

Defect-related relaxation processes in irradiated rare gas solids.

Radiat. Eff. Defect Solid. 157, 729-735 (2002).

E.V. Savchenko, O.N. Grigorashchenko, G.B. Gumenchuk, A.G. Belov, E.M. Yurtaeva, M. Frankowski, A.M. Smith-Gicklhorn, V.E. Bondybey.

Relaxation processes induced by radiative electronic transitions in preirradiated rare gas solids.

Surface Sci. 528, 266-272 (2003).

O.N. Grigorashchenko, V.V. Rudenkov, I.V. Khizhnyi, E. V. Savchenko, M. Frankowski, A.M. Smith-Gicklhorn, M. K. Beyer, V.E. Bondybey
Activation spectroscopy of electronically induced defects in solid Ne.
Low Temp. Phys. 29(9), 876-879 (2003).

I. Balteanu, O. P. Balaj, B. S. Fox, M. K. Beyer, Z. Bastl, V. E. Bondybey.
Very Low Rate Constants of Bimolecular CO Adsorption on Anionic Gold Clusters:
Implications for Catalytic Activity.
Phys. Chem. Chem. Phys. 5, 1213-1218 (2003).

I. Balteanu, U. Achatz, O. P. Balaj, B. S. Fox, M. K. Beyer, and V. E. Bondybey
The Effect of Charge upon CO-Adsorption by Ionic Group 5 and Group 9 Transition Metal Clusters.
Int. J. Mass Spectrom. 229, 61-65 (2003).

O. Petru Balaj, Iulia Balteanu, Brigitte S. Fox-Beyer, Martin K. Beyer, Vladimir E. Bondybey
Addition of a Hydrogen Atom to Acetonitrile by Hydrated Electrons in Nanodroplets.
Angew. Chem. 115, 5675-5677 (2003); Angew. Chem. Int. Ed. 42, 5516-5518 (2003).

J. O'Reilly, S. Douin, S. Boyé, N. Shafizadeh and D. Gauyacq
Production of electronically excited CH via the vacuum ultraviolet photodissociation of ethylene and the possible role of ethylidene isomer supercomplex of acetylene: The geometry of the E state revisited through experiment and theory
J.Chem.Phys. 119, 820 (2003).

H.-C. Liu, S. Yang, I. Balteanu, O. P. Balaj, B. S. Fox-Beyer, M. K. Beyer, V. E. Bondybey
Generation of $C_6H_4^+$ by Laser Vaporization of Magnesium with *o*- $C_6H_4F_2$ in Argon Carrier Gas.
Rapid Commun. Mass Spectrom. 18(13), 1479-1481 (2004).

J. Philip, J.P. Sprengers, P. Cacciani, C.A. de Lange, W. Ubachs.
Frequency-mixing scheme for the production of tunable narrow band XUV radiation (91-95 nm).
Appl. Phys. B 78, 737-743 (2004).

U. Hollenstein, E. Reinhold, C.A. de Lange, W. Ubachs
High resolution XUV-laser spectroscopic study of the $B^1\sigma_u^+ - X^1\sigma_g^+$, ($v',0$), $v'=0-2$ Lyman bands in H_2 and HD
In preparation (2004).

S. Hannemann, U. Hollenstein, C.A. de Lange, W. Ubachs
Narrowband production of XUV light via non-collinear phase matching
In preparation (2004).

M. K. Beyer, E. V. Savchenko, O. P. Balaj, I. Balteanu, B. S. Fox-Beyer, V. E. Bondybey
Generation of $Ar_nH_3^+$ Cluster Ions by Laser Vaporization and their Black-body Radiation Induced Dissociation.
Phys. Chem. Chem. Phys. 6, 1128-1132 (2004).

O. P. Balaj, C.-K. Siu, I. Balteanu, B. S. Fox-Beyer, M. K. Beyer, V. E. Bondybey

Base Catalyzed Hydrogen/Deuterium Exchange between Water and Acetonitrile in Anionic Water Clusters.

J. Phys. Chem. A 108, 7506-7512 (2004).

O. P. Balaj, C.-K. Siu, I. Balteanu, M. K. Beyer, V. E. Bondybey
Reaction of Hydrated Electrons $(\text{H}_2\text{O})_n^-$ with Carbon Dioxide and Molecular Oxygen:
Hydration of the CO_2^- and O_2^- Anions.

Chem. Eur. J. 10, 4822-4830 (2004).

O. P. Balaj, C.-K. Siu, I. Balteanu, M. K. Beyer, V. E. Bondybey
Free electrons, the simplest radical of them all: Chemistry of aqueous electrons as studied by mass spectrometry.

Int. J. Mass Spectrom. 238, 65-74 (2004).

I. Balteanu, O. P. Balaj, M. K. Beyer, V. E. Bondybey
Reactions of Platinum Clusters $^{195}\text{Pt}_n^\pm$, $n = 1 - 23$, with N_2O Studied with Isotopically Enriched Platinum.

Phys. Chem. Chem. Phys., submitted (2004).

M. Frankowski, A.M. Smith-Gicklhorn, V.E. Bondybey
Spectroscopy of the XeC_2 molecule in xenon, argon and krypton matrices.

Can. J. Chem. (G. Herzberg memorial issue), in press (2004).

M. Frankowski, E. V. Savchenko, A.M. Smith-Gicklhorn, O.N. Grigorashchenko, G. B. Gumenchuk, V.E. Bondybey

Thermally stimulated exoelectron emission from solid neon.

J. Chem. Phys., submitted (2004).

M. Frankowski, A.M. Smith-Gicklhorn, Z. Sun, V.E. Bondybey
Protonated and fragment ions of acetonitrile. Mass-selective matrix-isolation study.

In preparation (2004).

T.P. Rakitzis, P.C. Samartzis, R.L. Toomes, L. Tsigaridas, M. Coriou, D. Chestakov, A.T.J.B. Eppink, D.H. Parker, T.N. Kitsopoulos

Photofragment alignment from the photodissociation of HCl and HBr.

Chem. Phys. Lett. 364, 115-120 (2002).

M.J. Bass, M. Brouard, C. Vallance, T.N. Kitsopoulos, P.C. Samartzis, R.L. Toomes
The dynamics of the $\text{Cl} + \text{C}_2\text{H}_6 \rightarrow \text{HCl} (v', j') + \text{C}_2\text{H}_5$ reaction at 0.24 eV: is ethyl a spectator?

J. Chem. Phys. 119, 7168-7178 (2003).

T.P. Rakitzis, P.C. Samartzis, R.L. Toomes, T.N. Kitsopoulos, A. Brown, G.G. Balint-Kurti, O.S. Vasyutinskii, J.A. Beswick

Spin-polarized hydrogen atoms from molecular photodissociation.

Science 300(5627), 1936-1938 (2003).

R.L. Toomes, T.N. Kitsopoulos

Rotationally resolved reaction product imaging using crossed molecular beams.

Phys. Chem. Chem. Phys. 5, 2481-2483 (2003).

C. Murray, A.J. Orr-Ewing, R.L. Toomes, T.N. Kitsopoulos

Imaging the quantum-state specific differential cross sections of HCl formed from reactions of chlorine atoms with methanol and dimethyl ether.
J. Chem. Phys. 120, 2230-2237 (2004).

R.L.Toomes, P.C.Samartzis, T.P.Rakitzis, T.N.Kitsopoulos
Slice imaging of H-atom photofragments: effects of the REMPI detection process on the observed velocity distribution
Chem. Phys. 301, 209 (2004).

R.L.Toomes, J. van den Brom, T.N.Kitsopoulos, C. Murray, A.J. Orr-Ewing
Imaging the dynamics of the reactions of chlorine atoms with methyl halides
J. Phys. Chem. A 108, 7909 (2004).

M.J. Bass, M. Brouard, C. Vallance, T.N. Kitsopoulos, P.C. Samartzis, R.L. Toomes
The dynamics of the $\text{Cl} + n\text{-C}_4\text{H}_{10} \rightarrow \text{HCl}(v', j') + \text{C}_4\text{H}_9$ reaction at 0.32 eV
J. Chem. Phys. 121, 7175 (2004).

T.P.Rakitzis, P.C.Samartzis, R.L.Toomes, T.N.Kitsopoulos
Measurement of Br photofragment orientation and alignment from HBr photodissociation: Production of highly spin-polarized hydrogen atoms
J. Chem. Phys. 121, 7222 (2004).

A.J. van den Brom, M. Kapelios, T.N. Kitsopoulos, N.H. Nahler, M.N.R. Ashfold
Multiphoton Ionisation of Pyrrole at 243 and 364 nm
Phys. Chem. Chem. Phys., submitted (2004).

J. O'Reilly, S. Douin, S. Boyé, N. Shafizadeh, D. Gauyacq
Production of electronically excited CH via the vacuum-ultraviolet photodissociation of ethylidene and the possible role of the ethylidene isomer
J. Chem. Phys. 119, 820-826 (2003).

J.M. Dyke, M.V. Ghosh, D.J. Kinnison, G. Levita, D.E. Shallcross
A Kinetics and Mechanistic Study of the reaction between Molecular Chlorine and Dimethyl Sulfide
Phys. Chem. Chem. Phys., in press (2004).

R. I. Olariu, J. P. Santos, M.L. Costa, F. Parente
Conformational analysis of 2-, 3-, 4-Methylbenzylazide and Benzylazide
J. Mol. Struct., in preparation (2004).