

## Wolfgang E. Ernst

### Conferences (contributed and invited, most with unrefereed proceedings)

- 1 Übergangswahrscheinlichkeiten des neutralen Kryptons aus Bogenmessungen, W. E. Ernst and E. Schulz-Gulde, DPG-Frühjahrstagung 1976 in Hannover, Germany.
- 2 Eigendruck- und Starkverbreiterung von roten Kri-Linien, W. E. Ernst, B.-H. Müller und Th. Zaengel, DPG Frühjahrstagung 1977 in Essen, Germany.
- 3 A Computer Controlled CW Visible-UV-Laser Spektrometer, J. Kasper, C. Pollock, W. E. Ernst, G. K. Ernst, S. Ketkov, S. Blit and F. K. Tittel, Optical Society of America 1978 Annual Meeting San Francisco.
- 4 Spectroscopic Studies of Electron-Beam Pumped Ar-N<sub>2</sub> Laser Characteristics, W. E. Ernst, F. K. Tittel, W. L. Wilson, and G. Marowsky, Optical Society of America 1978 Annual Meeting, San Francisco.
- 5 Electron-Beam Pumped XeF Laser Studies of 351 and 488 nm, W. E. Ernst, C. Pollock, and F. K. Tittel, Topical Meeting on Excimer Lasers, Charleston, South Carolina (1979).
- 6 Der elektronenstrahlgepumpte XeF-Laser bei 351 und 486 nm, W. E. Ernst and F. K. Tittel, DPG-Frühjahrstagung 1980 in Bielefeld, Germany.
- 7 Studies of Tunable Electron Beam Pumped Excimer Lasers, F. K. Tittel, W. L. Wilson, W. E. Ernst, G. Marowsky, and M. Smayling, 1980 International Conference on Lasers, Shanghai (May 5-8) and Beijing (May 19-22), China (**invited**).
- 8 An Electron beam Excited Xe<sub>2</sub>C1 Laser, F. K. Tittel, W. L. Wilson, R. E. Stickel, G. Marowsky, and W. E. Ernst, Eleventh International Quantum Electronics Conference, Boston, Massachusetts (1980).
- 9 A New Double Resonance Technique: Microwave Optical Polarization Spectroscopy, W. E. Ernst and T. Törring, Fifth International Conference on Laser Spectroscopy, Jasper Park Codge, Alberta, Canada (9181) (Postdeadline paper).
- 10 Microwave Optical Polarization Spectroscopy, W. E. Ernst and T. Törring, 7<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Reading, England (1981).
- 11 Hochauflösende Messung von Molekül-Rotationsübergängen mit Hilfe von Mikrowellen-optischer Polarisationspektroskopie, W. E. Ernst und T. Törring, DPG-Frühjahrstagung (1982) in Würzburg (Fachvortrag), Germany.
- 12 High Resolution Studies of Unstable Diatomics by Microwave-Optical Polarization spectroscopy and Doppler Free Laser Polarization Spectroscopy, W. E. Ernst and T. Törring, Twelfth International Quantum Electronics Conference, München (1982), Germany.
- 13 Laser-Mikrowellen Doppelresonanzverfahren zur hochauflösenden Spektroskopie von Radikalen, W. E. Ernst, DPG Frühjahrstagung (1983) in Regensburg (Fachvortrag), Germany.

- 14 Starkeffektmessungen am CaCl-Molekülstrahl mit Laser-Mikrowellen Doppelresonanzspektroskopie, S. Kindt, W. E. Ernst und T. Törring, DPG-Frühjahrstragung 1983 in Regensburg, Germany.
- 15 Dopplerfreie Polarisationspektroskopie am  $B^2\Sigma - X^2\Sigma$ -Übergang von SrF, J. Schröder und W. E. Ernst, DPG-Frühjahrstragung 1983 in Regensburg, Germany.
- 16 Laser-Microwave Polarization Spectroscopy of Radicals, W. E. Ernst, Sixth International Conference on Laser Spectroscopy, Interlaken, Switzerland (1983) (**invited**).
- 17 Stark Effect Studies of CaCl  $X^2\Sigma$ , S. Kindt, W. E. Ernst and T. Törring, Eighth Colloquium on High Resolution Molecular Spectroscopy, Tours, France (1983).
- 18 Polarization Spectroscopy of Strontium Monohalide Radicals, W. E. Ernst, J. O. Schröder and T. Törring, Eighth Colloquium on High Resolution Molecular Spectroscopy Tours, France (1983).
- 19 Elektrische Dipolmomente von Erdalkalimonohalogeniden und ihre Interpretation, W. E. Ernst, S. Kindt und T. Törring, DPG-Frühjahrstragung 1984 in Münster, Germany.
- 20 Dipole Moments of Alkaline Earth Monohalides, T. Törring, W. E. Ernst, and S. Kindt. British Radiofrequency Spectroscopy Group Spring Meeting 1984, Cambridge England (**invited**).
- 21 Polarization Spectroscopy of SrCl: The  $B^2\Sigma - X^2\Sigma^+$  System, W. E. Ernst and J. O. Schröder, 39<sup>th</sup> Annual Symposium on Molecular Spectroscopy, Columbus, OH (1984).
- 22 Dipole Moments of Calcium Monohalides from Molecular Beam Laser-Microwave Double Resonance Spectroscopy, W. E. Ernst, S. Kindt, and T. Törring, 39<sup>th</sup> Annual Symposium on Molecular Spectroscopy, Columbus, OH (1984).
- 23 Laser-Microwave Double Resonance Experiments for High Resolution Spectroscopy of Radicals, W. E. Ernst, S. Kindt, J. O. Schröder and T. Törring, 13<sup>th</sup> International Quantum Electronics Conference, Anaheim, CA (1984).
- 24 Electronic Structure of Alkaline Earth Monohalides Determined by Combined Laser- and MW-Spectroscopy, W. E. Ernst and Törring, Gordon Research Conference on High Temperature Chemistry, Wolfeboro, NH, USA (1984).
- 25 Rotations- und Hyperfeinstruktur von Erdalkalimonohalogeniden, W. E. Ernst, J. Kändler, J. Lütke, J. O. Schröder, T. Törring und G. Weiler, DPG-Frühjahrstragung (1985) Bayreuth, Germany.
- 26 Polarisationspektroskopie an Strontiummonohalogeniden, J. O. Schröder, B. Zeller und W. E. Ernst, DPG-Frühjahrstragung (1985) in Bayreuth, Germany.
- 27 Hochpräzise Messungen des elektrischen Dipolmomentes von SrF  $X^2\Sigma^+$ , J. Kändler, W. E. Ernst und T. Törring, DPG-Frühjahrstragung (1985) in Bayreuth, Germany.

- 28 High Resolution Spectroscopy of  $\text{Sr}^{79}\text{Br}$  and  $\text{Sr}^{81}\text{Br}$ :  $\text{B}^2\Sigma^+ - \text{X}^2\Sigma^+$  Rotational Analysis and Hyperfine Structure, W. E. Ernst and J. O. Schröder, 40<sup>th</sup> Annual Symposium on Molecular Spectroscopy, Columbus, OH (1985).
- 29 Hyperfine Structure of  $\text{BaI X}^2\Sigma^+$ , W. E. Ernst, J. Kändler, and J. Lüdtkke, 40<sup>th</sup> Annual Symposium on Molecular Spectroscopy, Columbus, OH (1985).
- 30 Electronic Structure of Alkaline Earth Monohalides from Laser-Microwave Double Resonance Spectroscopy, W. E. Ernst, J. O. Schröder, and J. Kändler, Seventh International Conference on Laser Spectroscopy, Maui, Hawaii, USA (1985) (**invited**).
- 31 Perturbations in the  $\text{A}^2\Pi$  and  $\text{B}^2\Sigma^2$  States of  $\text{SrCl}$  and  $\text{SrBr}$ , J. O. Schröder, B. Zeller and W. E. Ernst, 9<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Riccione, Italy (1985).
- 32 Hyperfine Structure of Strontium and Barium Monohalides, W. E. Ernst, J. Kändler and J. O. Schröder, 9<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Riccione, Italy (1985).
- 33 Electric Dipole Moments of Alkaline Earth Monohalides, W. E. Ernst, J. Kändler, and T. Törring, 9<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Riccione, Italy (1985).
- 34 High Resolution Spectroscopy of Alkaline Earth Monohalides: Perturbation Analysis, Hyperfine Structure, and Stark Effect, W. E. Ernst, Fritz Haber International symposium on Methods of Laser Spectroscopy, Weizmann Institute (Rehovot) und Ein Bokek, Israel (1985) (**invited**).
- 35 Optische-optische Doppelresonanz am  $\text{SrF}$ , C. Nitsch, W. E. Ernst und J. O. Schröder, DPG-Frühjahrstagung 1986 in Heidelberg, Germany.
- 36 Dipolmomentmessungen an elektronisch angeregten Zuständen des Kalzium-monochlorid, J. Kändler, W. E. Ernst und T. Törring, DPG-Frühjahrstagung 1986 in Heidelberg, Germany.
- 37 Laser-Microwave Double Resonance Spectroscopy of Alkaline Earth Monohalides: Hyperfine Structure and Electric Dipole Moments in Ground and Excited States, W. E. Ernst, 41<sup>st</sup> Symposium on Molecular Spectroscopy, Columbus, OH, USA (1986).
- 38 Optical-Optical Double Resonance Spectroscopy of  $\text{SrF}$ : Analysis of the High-Lying  $\text{F}^2\Sigma^+$  and  $\text{G}^2\Pi$  States, J. O. Schröder, C. Nitsch, and W. E. Ernst, 41<sup>st</sup> Symposium on Molecular Spectroscopy, Columbus, OH, USA (1986).
- 39 Investigation of the Stark Effect in Xe Autoionizing Rydberg Series Using a Coherent XUV Radiation Source, T. P. Softley, W. E. Ernst, L. Tashiro and R. N. Zare, 17<sup>th</sup> Annual Meeting of the Division of Electron and Atomic Physics, American Physical Society, Eugene, Oregon, USA (1986).
- 40 Double Resonance Techniques for the High Resolution Spectroscopy of Unstable Molecules, W. E. Ernst, International Laser Science Conference, Seattle, WA, USA (1986) (**invited**).

- 41 XUV Laser Stark Spectroscopy of Xe Autoionizing Rydberg States, W. E. Ernst, T. P. Softley, L. Tashiro and R. N. Zare, International Laser Science Conference, Seattle, WA, USA (1986).
- 42 Spektroskopie an Molekülen: Fortschritte durch den kombinierten Einsatz von Lasern und Mikrowellen, W. E. Ernst, DPG-Frühjahrstagung (1987) in Göttingen, Germany (**invited plenary lecture**).
- 43 Deutung von Hyperfeinstruktur- und Dipolmomentmessungen an verschiedenen elektronischen Zuständen des Strontiummonofluorid, J. Kändler and W. E. Ernst, DPG-Frühjahrstagung (1987) in Göttingen, Germany.
- 44 Ein XUV-Laser-Spektrometer zur Untersuchung der Photoionisation und Photofragmentierung kleiner Moleküle, W. E. Ernst, T. P. Softley, L. Tashiro and R. N. Zare, DPG-Frühjahrstagung (1987) in Göttingen, Germany.
- 45 Neue Doppelresonanzmethoden zur Untersuchung der elektronischen Struktur von Radikalen, W. E. Ernst, 51. Physikertagung der DPG (Haupttagung), Berlin, Germany (1987), Vortrag anlässlich der Verleihung des Physikpreises 1987 (**invited plenary lecture, award of 1987 Physics Prize**).
- 46 Laser Spectroscopy of Atoms and Molecules in the Extreme VUV below 100nm, W. E. Ernst, T. P. Softley, L. Tashiro and R. N. Zare, Eighth International Conference on Laser Spectroscopy, Åre, Sweden (1987) (**invited**).
- 47 Stark Effect Studies of Xenon Autoionizing Rydberg States Using Tunable Coherent XUV Radiation, T. P. Softley, W. E. Ernst, and R. N. Zare, XVth International Conf. on the Physics of Electronic and Atomic Collisions (ICPEAC), Brighton, UK (1987).
- 48 Laser Spectroscopy of Atoms and Molecules in the VUV Spectral Region below 100 nm, W. E. Ernst, 10<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France (1987) (**invited plenary lecture**).
- 49 Electric Dipole Moments and Hyperfine Structure of Alkaline Earth Monohalides in Different Electronic States, J. Kändler, W. E. Ernst, and T. Törring, 10<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France (1987).
- 50 Starkeffektuntersuchungen an autoionisierenden Rydbergzuständen des Xenon mit Hilfe kohärenter durchstimmbarer XUV-Strahlung, W. E. Ernst, T. P. Softley und R. N. Zare, DPG-Frühjahrstagung (1988) in Bonn, Germany.
- 51 Hochauflösende UV-Laserspektroskopie am CaF-Molekülstrahl: Rotationsstruktur und Starkeffekt des C<sup>2</sup>Tl-Zustands, J. Kändler und W. E. Ernst, DPG-Frühjahrstagung (1988) in Bonn, Germany.
- 52 Polarisationspektroskopie am Jod-Molekül im roten Spektralbereich, S. Rakowsky, D. Zimmermann und W. E. Ernst, DPG-Frühjahrstagung (1988) in Bonn, Germany.
- 53 UVU-Erzeugung durch Frequenzverdreifung in Edelgaskristallen, G. Schilling, W. E. Ernst, H. Nahme, R. Markus und N. Schwentner, DPG-Frühjahrstagung (1988) in Bonn, Germany.

- 54 XUV Laser Stark Spectroscopy of Xenon Autoionizing Rydberg States, W. E. Ernst, T. P. Softley and R. N. Zare, XVIth International Quantum Electronics Conference, Tokyo, Japan (1988).
- 55 Generation of VUV Radiation by Frequency Tripling in Rare Gas Crystals, G. Schilling, W. E. Ernst, and N. Schwentner, VXIth International Quantum Electronics Conference, Tokyo, Japan (1988).
- 56 Investigation of the Stark Effect in Xenon Autoionizing Rydberg Series with the Use of Coherent Tunable XUV Radiation, W. E. Ernst, T. P. Softley and R. N. Zare, Topical Meeting on Laser Materials and Laser Spectroscopy, Shanghai, China (1988).
- 57 Generation of VUV Radiation by Frequency Tripling in Rare Gas Crystals, G. Schilling, W. E. Ernst, and N. Schwentner, European Quantum Electronics Conference, Hannover, Germany (1988).
- 58 Starkeffektuntersuchungen an angeregten Zuständen, O. Knüppel und W. E. Ernst, DPG-Frühjahrstagung (1989) in Essen, Germany.
- 59 Laserspektroskopie am Strontiummonojodid: Rotationsanalyse und Entstörung der  $A^2\Pi-X^2\Sigma^+$  und  $B^2\Sigma^+-X^2\Sigma^+$  -Spektren, W. E. Ernst, J. O. Schröder und B. Zeller, DPG Frühjahrstagung (1989) in Essen, Germany.
- 60 Ein elektrostatisches Polarisationsmodell zur Bestimmung der Energien und Dipolmomente niedrigliegender elektronischer Zustände von Erdalkali-monohalogenid-Radikalen, T. Törring, W. E. Ernst und J. Kändler, DPG-Frühjahrstagung (1989) in Essen, Germany.
- 61 Frequenzverdreifachung an Kr-, Ar- und Ne-Kristallen, G. Schilling, W. E. Ernst und N. Schwentner, DPG-Frühjahrstagung (1989) in Essen, Germany.
- 62 High Resolution Double Resonance Spectroscopy of Molecules and Small Clusters, W. E. Ernst, 44<sup>th</sup> Symposium on Molecular Spectroscopy, Columbus, OH, USA (1989) (**invited plenary lecture**).
- 63 Laser Spectroscopy of High Temperature Molecules and Clusters, W. E. Ernst and J. Kändler, Ninth International Conference on Laser Spectroscopy, Bretton Woods, NH, USA (1989) (**invited**).
- 64 Studies of Metastable Rydberg States of Atoms and Molecules Using Coherent XUV Radiation, T. P. Softley, F. Merkt, W. E. Ernst, and R. N. Zare, 9<sup>th</sup> International Conference on Vacuum Ultraviolet Radiation Physics, Honolulu, Hawaii, USA (July 1989).
- 65 Generation of VUV-Radiation by Frequency Tripling in Rare Gas Crystals, G. Schilling, W. E. Ernst, H. Kunz, and N. Schwentner, 9<sup>th</sup> International Conference on Vacuum Ultraviolet Radiation Physics, Honolulu, Hawaii, USA (July 1989).
- 66 Excited State Dipole Moments of Alkaline Earth Monohalides and an Electrostatic Polarization Model, W. E. Ernst, J. Kändler, O. Knüppel and T. Törring, 11<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Gießen, Germany (1989).

- 67 Accurate Determination of Wavenumbers and Hyperfine Structure for Iodine Molecular Lines between 12900 and 13900  $\text{cm}^{-1}$ , S. Rakowsky, D. Zimmermann, and W.E. Ernst, 11th Colloquium on High Resolution Molecular Spectroscopy, Gießen, Germany (1989).
- 68 94.12nm-Strahlung durch optimierte Frequenzverdreifachung in Ar-Kristallen und Filmen, G. Schilling, W.E. Ernst und N. Schwentner, DPG-Frühjahrstagung (1990) in München, Germany.
- 69 Third Harmonic Generation in Argon Crystals and Films, G. Schilling, N. Schwentner, and W.E. Ernst, International Quantum Electronics Conference (1990), Anaheim, USA.
- 70 Laser Spectroscopic Investigation of the Orange Bands of SrO, R.F.W. Herrmann, W.E. Ernst, M. Gründler, and M. Stein, 45th Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1990).
- 71 Rotational Analysis of the  $\text{C}^2\Pi - \text{X}^2\Sigma^+$  (0,0) System of CaF, W.E. Ernst, O. Knüppel, and J. Kändler, 45th Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1990).
- 72 High Resolution Spectroscopy of  $\text{Na}_3$  by Resonant Two-Photon Ionization, W.E. Ernst and S. Rakowsky, East Coast Symposium on the Chemistry and Physics of Clusters and Cluster Ions, Baltimore, MD, USA (1991).
- 73 Laser Spectroscopy of Strontium Monoxide Near 16800  $\text{cm}^{-1}$ : Absorption from the Low Lying  $^1\Sigma$  and  $^3\Sigma$  States, R.F.W. Herrmann and W.E. Ernst, 46th Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1991).
- 74 High Resolution Spectroscopy of  $\text{Na}_3$  by Cw Resonant Two-Photon Ionization, Stefan Rakowsky and Wolfgang E. Ernst, 46th Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1991).
- 75 The Orange Bands of SrO: Partial Analysis of the Triplet System, R.F.W. Herrmann, G. Sumnicht, and W.E. Ernst, 47<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1992).
- 76 High Resolution Spectroscopy of the  $\text{Na}_3$  B-X System, Stefan Rakowsky and Wolfgang E. Ernst, 47th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1992).
- 77 Generation of XUV-Radiation by Frequency Tripling in Ar Crystals and Thin Films, G. Schilling, W.E. Ernst, and N. Schwentner, 10th International Conference on Vacuum Ultraviolet Radiation Physics, Paris, France (1992).
- 78 High Resolution Laser Spectroscopy of the  $\text{Na}_3$  B-X System, S. Rakowsky, R.F.W. Herrmann, and W.E. Ernst, 6th International Symposium on Small Particles and Inorganic Clusters, Chicago, Illinois, USA (1992).
- 79 Is the B State of  $\text{Na}_3$  a Case of Berry's Phase?, W.E. Ernst and S. Rakowsky, 6th International Symposium on Small Particles and Inorganic Clusters, Chicago, Illinois, USA (1992).

- 80 High Resolution Studies of the Molecular Dynamics in Small Clusters, W.E. Ernst and S. Rakowsky, 15th International Conference on Lasers and Applications, Houston, Texas, USA (1992) **(invited)**.
- 81 Frequenzverdreifung an Edelgasdüsenstrahlen, S. Schütte, C. Lauenstein, U. Buck und W.E. Ernst, DPG-Frühjahrstagung (1993) in Berlin, Germany.
- 82 Pseudorotation, Rotation, and Coriolis Interaction in Sodium Trimers, S. Rakowsky, R.F.W. Herrmann, and W.E. Ernst, 15th International Symposium on Molecular Beams, Berlin, Germany (1993) ("Hot Topic").
- 83 Optical Third Harmonic Generation in Different Supersonic Jets, U. Buck, C. Lauenstein, S. Schütte, and W. E. Ernst, 15th International Symposium on Molecular Beams, Berlin, Germany (1993) ("Hot Topic").
- 84 The Rotational Structure of the B State of the Sodium Trimer, R.F.W. Herrmann, S. Rakowsky, and W.E. Ernst, 48th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1993).
- 85 Integer Quantization of the Pseudorotational Motion in the Na<sub>3</sub> B State, S. Rakowsky and W.E. Ernst, 48th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1993).
- 86 Laser Spectroscopy Tests for Berry's Geometrical Phase in Molecules, W.E. Ernst, Eleventh International Conference on Laser Spectroscopy, Hot Springs, Virginia, USA (1993) **(invited)**.
- 87 Molecular Dynamics in Small Clusters Probed by High Resolution Double Resonance Ionization Spectroscopy, W.E. Ernst, S. Rakowsky, and R.F.W. Herrmann, 9<sup>th</sup> Interdisciplinary Laser Science Conference (ILS-IX), Toronto, Canada (1993) **(invited)**.
- 88 Spektroskopische Tests der Berry-Phase in Molekülen, W.E. Ernst, 58. Physikertagung, Hamburg, Germany (1994) **(invited plenary lecture)**.
- 89 High Resolution Studies of Vibronic Coupling in Small Clusters, W.E. Ernst, March Meeting of The American Physical Society, Pittsburgh, Pennsylvania, USA (1994) **(invited)**.
- 90 Spectroscopy of Alkali Atoms and Molecules Attached to Large Helium Clusters, F. Stienkemeier, W.E. Ernst, J. Higgins, and G. Scoles, Workshop on Quantum Fluid Clusters, Ringberg Schloß, Bavaria, Germany (1994) **(invited)**.
- 91 The B State of the Sodium Trimer: Pseudorotation, Rotation, and Coriolis Interaction, W.E. Ernst and S. Rakowsky, 49<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1994).
- 92 Barium Atom and Ion Densities in a Fluorescent Lamp Obtained from Measurements and Computer Simulations, Jianou Shi, Wolfgang E. Ernst, and Domenic A. Santavicca, IEEE 21<sup>st</sup> International Conference on Plasma Science (ICOPS), Santa Fe, NM, USA, 6-8 June 1994.
- 93 Integer Quantization of the Pseudorotation in the B<sup>2</sup>A<sub>1</sub>' State of Na<sub>3</sub>, W.E. Ernst and S. Rakowsky, International Discussion Meeting of the Deutsche Bunsengesellschaft on

- "Molecular Spectroscopy and Molecular Dynamics", Grainau, Bavarian Alps, Germany (1994).
- 94 Laser Spectroscopy of Alkali Molecules Formed on Large Helium Clusters, F. Stienkemeier, W.E. Ernst, J. Higgins, and G. Scoles, International Discussion Meeting of the Deutsche Bunsengesellschaft on "Molecular Spectroscopy and Molecular Dynamics", Grainau, Bavarian Alps, Germany (1994).
  - 95 Rotation and Pseudorotation in the  $B^2A_1'$  State of  $Na_3$ , W.E. Ernst and S. Rakowsky, International Conference on "The Future of Spectroscopy: From Astronomy to Biology" (in honour of Dr. Gerhard Herzberg), Sainte-Adèle, Québec, Canada (1994).
  - 96 Spectroscopy of Alkali Atoms and Molecules Attached to Large Helium Clusters, F. Stienkemeier, W.E. Ernst, J. Higgins, and G. Scoles, International Conference on "The Future of Spectroscopy: From Astronomy to Biology" (in honour of Dr. Gerhard Herzberg), Sainte-Adèle, Québec, Canada (1994).
  - 97 Spectroscopy of Alkali Clusters Generated on the Surface of Helium Clusters, G. Scoles, F. Stienkemeier, J. Higgins, and W.E. Ernst, March Meeting of the American Physical Society, San Jose, California, USA (1995).
  - 98 Photoionization and Optical Absorption of  $Na_2F$  and  $Na_3O$ , D.T. Vituccio, R.F.W. Herrmann, O. Golonzka, and W.E. Ernst, 50<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1995).
  - 99 Rotationally Resolved Spectroscopy of the  $1^3\Sigma_g^+ - 1^3\Sigma_u^+$  Transition of  $Na_2$  Formed on the Surface of Helium Clusters, F. Stienkemeier, J. Higgins, W.E. Ernst, and G. Scoles, 50<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1995).
  - 100 Laser Spectroscopy of Lithium on the Surface of Liquid Helium Clusters, F. Stienkemeier, J. Higgins, C. Callegari, G. Scoles, and W.E. Ernst, Twelfth International Conference on Laser Spectroscopy, Capri, Italy (1995).
  - 101 Spectroscopy of Alkali Atoms and Molecules Attached to Highly Quantum Clusters, F. Stienkemeier, J. Higgins, W.E. Ernst, C. Callegari, and G. Scoles, Twelfth International Conference on Laser Spectroscopy, Capri, Italy (1995) (**invited**).
  - 102 Integer Quantization of the Pseudorotation in the  $B^2A_1'$  State of the Sodium Trimer, W.E. Ernst and S. Rakowsky, 23rd International Symposium on Free Radicals, Victoria, B.C., Canada (1995).
  - 103 Laser Spectroscopy of Alkali Molecules Formed on Large Helium Clusters, F. Stienkemeier, W.E. Ernst, J. Higgins, and G. Scoles, 23<sup>rd</sup> International Symposium on Free Radicals, Victoria, B.C., Canada (1995).
  - 104 Low-Barrier Rotation-Pseudorotation Hamiltonian and Application to the B State of  $Na_3$ , N. Ohashi, M. Tsuura, J.T. Hougen, W.E. Ernst, and S. Rakowsky, 51st International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).
  - 105 Optical-Optical Double Resonance Spectroscopy of the A-X and B-X Systems of  $Na_3$ , D.T. Vituccio, O. Golonzka, and W.E. Ernst, 51st International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).

- 106 Global Fit of the B-X System of Na<sub>3</sub> Using a New Model Hamiltonian, O. Golonzka, D.T. Vituccio, and W.E. Ernst, 51st International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).
- 107 Optical Singlet and Triplet Bands of Homonuclear Alkali Diatomics Attached to Cold Helium Clusters, J. Higgins, C. Callegari, J. Reho, W.E. Ernst, and G. Scoles, 51st International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).
- 108 Observation of the  $2^3\Sigma_g^+ - 1^3\Sigma_u^+$  and  $1^3\Pi_g - 1^3\Sigma_u^+$  Transitions of the NaK Molecule on the Surface of Helium Clusters, J. Higgins, C. Callegari, J. Reho, W.E. Ernst, K.K. Lehmann, and G. Scoles, 51<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).
- 109 Dispersed Fluorescence Studies of Quartet State Alkali Trimers, J. Higgins, C. Callegari, J. Reho, W.E. Ernst, K.K. Lehmann, G. Scoles, F. Stienkemeier, and M. Gutowski, 51<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1996).
- 110 Resonant Two-Photon Ionization Spectroscopy of Small Alkali and Superalkali Clusters, W.E. Ernst, O. Golonzka, R.F.W. Herrmann, and D.T. Vituccio, Eighth International Symposium on Resonance Ionization Spectroscopy and Its Applications (RIS- 96), State College, PA, USA (1996).
- 111 Preparation and Spectroscopy of Alkali Aggregates on Cold Helium Clusters, J. Higgins, C. Callegari, J. Reho, F. Stienkemeier, W.E. Ernst, and G. Scoles, 14th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic (1996).
- 112 Global Fit of the B-X System of Na<sub>3</sub> Using a New Model Hamiltonian, O. Golonzka, D.T. Vituccio, and W.E. Ernst, 14th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic (1996).
- 113 Optical-Optical Double Resonance Spectroscopy of the A-X and B-X Systems of Na<sub>3</sub>, D.T. Vituccio, O. Golonzka, and W.E. Ernst, 14th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic (1996).
- 114 Low-Barrier Rotation-Pseudorotation Hamiltonian and Application to the B State of Na<sub>3</sub>, N. Ohashi, M. Tsuura, J.T. Hougen, W.E. Ernst, and S. Rakowsky, 14th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic (1996).
- 115 Highly Quantum Clusters as an Environment for Spectroscopy of Alkali Atoms and Molecules, F. Stienkemeier, G. Scoles, J. Higgins, C. Callegari, J. Reho, and W. E. Ernst, 12th Interdisciplinary Laser Science Conference (ILS-XII), Rochester, NY, USA (1996) (**invited**).
- 116 Spectroscopy and Photochemistry of Spin 3/2 Na<sub>3</sub>, J. Higgins, C. Callegari, J. Reho, F. Stienkemeier, W.E. Ernst, K.K. Lehmann, M. Gutowski, and G. Scoles, 12th Interdisciplinary Laser Science Conference (ILS-XII), Rochester, NY, USA (1996).
- 117 Atome auf kalten Clustern - Reaktionsdynamik bei 0,4 Kelvin, W.E. Ernst, Frühjahrstagung der Deutschen Physikalischen Gesellschaft, Mainz, Germany (1997) (**invited plenary lecture**).

- 118 Alkali Molecules on Large Helium Clusters: Reaction Dynamics at 0.4 Kelvin, W.E. Ernst, March Meeting of the American Physical Society, Kansas City, Missouri, USA (1997) **(invited)**.
- 119 Three-Body van der Waals Forces in Quartet State Alkali Trimers, J. Higgins, C. Callegari, J. Reho, W.E. Ernst, K.K. Lehmann, G. Scoles, and M. Gutowski, March Meeting of the American Physical Society, Kansas City, Missouri, USA (1997).
- 120 Determination of the Barrier to Free Pseudorotation in the Sodium Trimer, W.E. Ernst, D.T. Vituccio, and O. Golonzka, March Meeting of the American Physical Society, Kansas City, Missouri, USA (1997).
- 121 The Barrier to Free Pseudorotation in the Sodium Trimer, W.E. Ernst, D.T. Vituccio, and O. Golonzka, 52nd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1997).
- 122 The Effects of a Helium Nano-Droplet Matrix on the Electronic Spectroscopy of Sodium Dimers, J. Higgins, C. Callegari, J. Reho, G. Scoles, and W.E. Ernst, 52nd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1997).
- 123 Atoms on Cold Clusters: Laser Spectroscopic Investigation of the Interaction Dynamics, W.E. Ernst, 29th EGAS Conference, Berlin, Germany (1997) **(invited plenary lecture)**.
- 124 Vibronic Interaction Dynamics in Alkali Trimers from High Resolution Spectroscopy, W.E. Ernst, 24th International Symposium on Free Radicals, Tällberg, Dalecarlia, Sweden (1997) **(invited)**.
- 125 Excited State Dynamics of Na, Na<sub>2</sub>, and Na<sub>3</sub> on Superfluid Helium Clusters, J. Higgins, C. Callegari, J. Reho, W.E. Ernst, K.K. Lehmann, M. Gutowski, and G. Scoles, Faraday Discussion No. 108, University of Sussex, UK (1997) **(invited)**.
- 126 High Resolution Analysis of a Coupled Three-State System in the Sodium Trimer, W.E. Ernst and O. Golonzka, Annual Meeting of the Division of Atomic, Molecular, and Optical Physics of the American Physical Society, Santa Fe, New Mexico, USA (1998).
- 127 Microwave Transitions in the Na<sub>3</sub> Ground State, W.E. Ernst and O. Golonzka, 53rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1998).
- 128 What is the B' State of Na<sub>3</sub>?, O. Golonzka and W. E. Ernst, 53rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1998).
- 129 Jahn-Teller and Pseudo Jahn-Teller Interactions in the B State Manifold of the Sodium Trimer, O. Golonzka and W.E. Ernst, 53<sup>rd</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1998).
- 130 Helium Droplets as Nano-Cryostats: Atomic and Molecular Spectroscopy in a Cold Environment, W. E. Ernst, J. Higgins, C. Callegari, J. Reho, K.K. Lehmann, and G. Scoles, 14<sup>th</sup> International Conference on Spectral Line Shapes, Penn State, University Park, Pennsylvania, USA (1998) **(invited)**.
- 131 Tunneling, Hyperfine Structure, and Dipole Moment in Sodium Trimers from Microwave Absorption, W. E. Ernst and O. Golonzka, Centennial Meeting of The American Physical Society (Division of Chemical Physics), Atlanta, Georgia, USA (1999).

- 132 Highly Excited States in a Three-Surface Pseudo Jahn-Teller Potential, O. Golonzka and W. E. Ernst, Centennial Meeting of The American Physical Society (Division of Chemical Physics), Atlanta, Georgia, USA (1999).
- 133 Microwave and Rf Absorption in Small Clusters Detected by Resonant Two-Photon Ionization, W. E. Ernst and O. Golonzka, Centennial Meeting of The American Physical Society (Division of Atomic, Molecular, and Optical Physics), Atlanta, Georgia, USA (1999).
- 134 The Sodium Trimer: A Model System for the Study of Vibronic Interactions and Geometric Phase Effects, W. E. Ernst, ITAMP Workshop on "The Geometric Phase: Recent Developments and Applications in AMO Physics", Harvard Institute for Theoretical Atomic and Molecular Physics, Cambridge, MA, USA (1999) **(invited)**.
- 135 Helium Nanodroplets: A Finite Size Superfluid and a Cold Environment for Atoms and Molecules, W. E. Ernst, NASA/JPL International Conference on Fundamental Physics in Space, Washington, D.C., USA (1999).
- 136 Microwave Transitions in Na<sub>3</sub> Detected by Resonant Two-Photon Ionization, W. E. Ernst and O. Golonzka, 54<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1999).
- 137 Tunneling Splitting and Hyperfine Structure in the Na<sub>3</sub> Cluster, L.H. Coudert and W.E. Ernst, 54<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (1999).
- 138 Trapping and Spectroscopy of Molecules in Cold Helium Droplets, W. E. Ernst, ITAMP Workshop on "Trapping, Spectroscopy, and Collisions of Ultracold Molecules", Harvard Institute for Theoretical Atomic and Molecular Physics, Cambridge, MA, USA (1999) **(invited)**.
- 139 Microwave Spectroscopy of Na<sub>3</sub> Clusters, W. E. Ernst and O. Golonzka, 25<sup>th</sup> International Symposium on Free Radicals, Flagstaff, AZ, USA (1999).
- 140 Trapping and Spectroscopy of Molecules in Cold Helium Droplets, F. R. Brühl, M. K. Ballard, and W. E. Ernst, 25<sup>th</sup> International Symposium on Free Radicals, Flagstaff, AZ, USA (1999).
- 141 Spectroscopy of Rubidium Atoms and Molecules on Cold Helium Nanodroplets, W. E. Ernst, F. R. Brühl, and R. A. Miron, 55<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (2000).
- 142 Jahn-Teller and Pseudo Jahn-Teller Interactions in Metal Trimers, W. E. Ernst, 55<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (2000).
- 143 Optical Spectroscopy of Molecules in Helium Nanodroplets, W. E. Ernst, IV<sup>th</sup> Workshop on Quantum Fluid Clusters, Ringberg Schloß, Bavaria, Germany (2000) **(invited)**.
- 144 Frequency Domain Spectroscopy of Alkali Oligomers on Helium Nanodroplets, W. E. Ernst, 220<sup>th</sup> American Chemical Society National Meeting, Washington, D.C., USA (2000) **(invited)**.

- 145 From Atoms to Clusters: Aggregation Controlled by Quantum Mechanics, W. E. Ernst, 50. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria (2000) **(invited)**.
- 146 Alkali Trimers – The Smallest Pieces of Metal? , W. E. Ernst, 16<sup>th</sup> Annual Waterloo Symposium on Chemical Physics, Waterloo, Ontario, Canada (2000) (in honor of Giacinto Scoles' 65<sup>th</sup> birthday).
- 147 Helium Nanodroplets – A Finite Size Superfluid and a Cold Environment for Atoms and Molecules, W. E. Ernst, Workshop on Prospects of Cold Molecules II, Castle St. Martin, Austria (2000) **(invited)**.
- 148 Experiments with Rubidium and Cesium Atoms on Cold Helium Nanodroplets, W. E. Ernst, Coherent Control and Cold Molecules, International Workshop, Laboratoire Aime Cotton, CNRS, Orsay, France (2001) **(invited)**.
- 149 Dynamics of Rubidium and Cesium Atoms on Helium Nanodroplets, W. E. Ernst, V<sup>th</sup> Workshop on Quantum Fluid Clusters, European Centre for Theoretical Studies in Nuclear Physics and Related Areas, Trento, Italy, (2002) **(invited)**.
- 150 Die Dynamik von Rubidium- und Cäsiumatomen auf kalten Heliumnanotröpfchen, R. Huber, R. A. Miron, R. A. Trasca, F. R. Brühl, W. E. Ernst, 52. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Leoben, Austria (2002) (Fachvortrag).
- 151 From Atoms to Clusters: Aggregation Controlled by Quantum Mechanics, W. E. Ernst, 3<sup>rd</sup> Southeast Europe Conference of the Alexander von Humboldt Foundation, Zagreb, Croatia (2002) **(invited plenary lecture)**.
- 152 Alkali Clusters – Model Systems for the Study of Vibronic Interactions, W. E. Ernst, 35<sup>th</sup> EGAS Conference, Brussels, Belgium (2003) **(invited plenary lecture)**.
- 153 Spectroscopy of Organic Molecules in Helium Nanodroplets, F. R. Brühl, J. Jiang, and W. E. Ernst, 53. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Salzburg, Austria (2003) (Fachvortrag).
- 154 Raster-Helium-Atom-Mikroskopie, B. Holst und W. E. Ernst, 53. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Salzburg, Austria (2003).
- 155 Spectroscopy of Organic Molecules in Helium Nanodroplets, W. E. Ernst, F. R. Brühl, and S. Jiang, 68. Physikertagung der Deutschen Physikalischen Gesellschaft, München, Germany (2004).
- 156 Measurements of Light Assisted Collisions in a Combined Na-Li MOT, Ch. Binder, G. Auböck, L. Holler, N. Jaritz, W. E. Ernst, and L. Windholz, 8<sup>th</sup> EPS Conference on Atomic and Molecular Physics, Rennes, France (2004).
- 157 Electronic Spectra of Potassium Atoms and Molecules on Large Argon Clusters, J. Nagl, C. Callegari, and W. E. Ernst, 8<sup>th</sup> EPS Conference on Atomic and Molecular Physics, Rennes, France (2004).
- 158 Fluorescence and Beam Depletion Spectra of K Atoms Attached to Large Argon Clusters, J. Nagl, C. Callegari, and W. E. Ernst, 59<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA (2004).

- 159 Heavy Alkali Atoms on Helium Nanodroplets: Spectra and Interpretation, W. E. Ernst, 228<sup>th</sup> American Chemical Society National Meeting, Philadelphia, PA, USA (2004) **(invited)**.
- 160 Cold Clusters in the Light of Lasers, W. E. Ernst, V<sup>th</sup> Workshop on Atomic and Molecular Physics, Jurata, Poland (2004) **(invited)**.
- 161 Elektronische Spektren von Kaliumatomen und –molekülen an großen Argonclustern, J. Nagl, C. Callegari, und W. E. Ernst, 54. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Linz, Austria (2004).
- 162 How Can Siemens and BASF Profit from Einstein?, W. E. Ernst, Symposium Central and Eastern Europe – Connecting Corporate and Academic Europe, Wien, Austria (2004) **(invited)**.
- 163 Trap Loss Collisions in a Two-Species Na-Li Magneto-Optical Trap, G. Auböck, C. Binder, L. Holler, J. Szczepkowski, C. Rumpf, V. Wippel, W. E. Ernst, and L. Windholz, EU Workshop on Applications and Dynamics of Cold Molecules, Hannover, Germany, Feb. 2005.
- 164 Spectroscopy of Rb<sub>2</sub> and KRb on He Nanodroplets, J. Nagl, G. Auböck, C. Callegari, W. E. Ernst, and L. Windholz, EU Workshop on Applications and Dynamics of Cold Molecules, Hannover, Germany, Feb. 2005.
- 165 Cesium Dimer Spectroscopy on Helium Droplets, W. E. Ernst, R. Huber, J. Jiang, R. Beuc, M. Movre, G. Pichler, EU Workshop on Applications and Dynamics of Cold Molecules, Hannover, Germany, Feb. 2005.
- 166 Metastable complexes: formation and photochemistry in superfluid helium, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, Ultracold Chemistry – an ESF Exploratory Workshop, Mulhouse, France, Feb. 2005 **(invited)**.
- 167 **Opening lecture** on: HELIUM CLUSTERS: Finite-size superfluid and nano-size cryostat  
Heraeus Seminar Nr. 343 (organized by W. E. Ernst and C. Callegari), Physikzentrum Bad Honnef, Germany, March 30-April 1, 2005. (2005).
- 168 Spectroscopy of Rb<sub>2</sub> and KRb on helium nanodroplets, J. Nagl, G. Auböck, C. Callegari, and W.E. Ernst, Heraeus Seminar Nr. 343 (organized by W. E. Ernst and C. Callegari), Physikzentrum Bad Honnef, Germany, March 30-April 1, 2005. (2005).
- 169 Electronic Spectra of Triplet Rb<sub>2</sub> Molecules on Helium Nanodroplets – Effects on the Spin-Orbit States, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, 60<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2005.
- 170 Electronic Spectra of Triplet KRb Molecules on Helium Nanodroplets, G. Auböck, J. Nagl, Carlo Callegari, and Wolfgang E. Ernst, 60<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2005.
- 171 Spectroscopy of Rb<sub>2</sub> and KRb on He Nanodroplets, J. Nagl, G. Auböck, C. Callegari, W. E. Ernst, and L. Windholz, 13<sup>th</sup> General Conference of the European Physical Society, Bern, Switzerland, July 2005.

- 172 Spectroscopy of Rb<sub>2</sub> and KRb on He Nanodroplets, J. Nagl, G. Auböck, C. Callegari, L. Windholz, and W. E. Ernst, 37<sup>th</sup> EGAS Conference, Dublin, Ireland, August 2005.
- 173 Spin Effects in the Spectroscopy of Atom and Molecule Doped Helium Nanodroplets – the Road to Optical Pumping in a Confined Superfluid, C. Callegari, J. Nagl, G. Auböck, and W. E. Ernst, 55. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Wien, Austria (2005).
- 174 Absorptions- und Emissionsspektren homo- und heteronuklearer Alkalimoleküle auf He-Clustern, J. Nagl, G. Auböck, C. Callegari, L. Windholz und W. E. Ernst, 55. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Wien, Austria (2005).
- 175 Angeregte Triplet-Potentiale aus Spektren kalter Alkalimoleküle, G. Auböck, J. Nagl, C. Callegari und W. E. Ernst, 55. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Wien, Austria (2005).
- 176 Scanning Helium Atom Microscopy – the First Images: Micron Scale Permeability Measurements on Artificial Porous Membranes, B. Holst, J. Greiner, M. Koch, and W. E. Ernst, 55. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Wien, Austria (2005).
- 177 Alkali Atoms on Cold Helium Droplets: Aggregation, State Selection, Optical Pumping, and Polarization, G. Auböck, J. Nagl, O. Allard, C. Callegari, and W. E. Ernst, EU and ESF Workshop on *Achievements and Perspectives of Cold Molecules*, Les Houches, France, March 2006 (**invited**).
- 178 Alkali Dimers and Trimers Adsorbed on Cold Helium Nanodroplets, O. Allard, J. Nagl, G. Auböck, C. Callegari, and W. E. Ernst, EU and ESF Workshop on *Achievements and Perspectives of Cold Molecules*, Les Houches, France, March 2006.
- 179 Laser-induced-fluorescence Excitation and Emission Spectra of the  $1^3\Sigma_u^+ - 1^3\Pi_g$  ( $1^3\Sigma^+ - 2^3\Pi$ ) Transition in K<sub>2</sub>, Rb<sub>2</sub> (KRb) on the Surface of Superfluid Helium Droplets, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 38<sup>th</sup> EGAS Conference, Ischia, Italy, June 2006.
- 180 Identification of Alkali-oligomer Spectra on Helium Nanodroplets by Laser Depletion, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 38<sup>th</sup> EGAS Conference, Ischia, Italy, June 2006.
- 181 Atoms on He Nanodroplets, and their Spin Interactions, Probed by Magnetic Dichroism, J. Nagl, G. Auböck, O. Allard, C. Callegari, and W. E. Ernst, 38<sup>th</sup> EGAS Conference, Ischia, Italy, June 2006 (invited progress report).
- 182 Laser-induced-fluorescence Excitation and Emission Spectra of the  $1^3\Sigma_u^+ - 1^3\Pi_g$  ( $1^3\Sigma^+ - 2^3\Pi$ ) Transition in K<sub>2</sub>, Rb<sub>2</sub> (KRb) on the Surface of Superfluid Helium Droplets, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 61<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2006.
- 183 Beam Depletion Spectra of K Atoms Attached to Ar Clusters: Experimental Measurements and Quantum Chemistry Calculations, J. Nagl, A. Hauser, C. Callegari, and W. E. Ernst, 61<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2006.

- 184 Identification of Alkali-oligomer Spectra on Helium Nanodroplets by Laser Depletion, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 61<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2006.
- 185 Magnetic Dichroism of Potassium Atoms on the Surface of Helium Nanodroplets, J. Nagl, G. Auböck, C. Callegari, and W. E. Ernst, 61<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2006.
- 186 Excitation and Depletion of Rb Atoms on Superfluid Helium Droplets: a Robust System for Optical Pumping?, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 61<sup>st</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA June 2006.
- 187 Atoms on He Nanodroplets, and their Spin Interactions, Probed by Magnetic Dichroism, G. Auböck, J. Nagl, O. Allard, C. Callegari, and W. E. Ernst, 20<sup>th</sup> International Conference on Atomic Physics, Innsbruck, Austria, July 2006.
- 188 Identification of Alkali-oligomer Spectra on Helium Nanodroplets by Laser Depletion, O. Allard, G. Auböck, J. Nagl, C. Callegari, L. Windholz, and W. E. Ernst, 20<sup>th</sup> International Conference on Atomic Physics, Innsbruck, Austria, July 2006.
- 189 The Structure of the alpha-Quarz (0001) Surface Investigated Using Helium Atom Scattering, W. Steurer, A. Apfalter, T. Sarlat, E. Sondergard, W. Ernst, and B. Holst, 24<sup>th</sup> European Conference on Surface Science, Paris, France, Sept. 2006.
- 190 Scanning Helium Atom Microscopy – the First Images, M. Koch, S. Rehbein, G. Schmahl, W. Ernst, and B. Holst, 24<sup>th</sup> European Conference on Surface Science, Paris, France, Sept. 2006.
- 191 Imaging with Neutral Atoms – the INA Project, B. Holst, W. Ernst, K. Fladischer, D. MacLaren, A. Weeks, W. Allison, B. Surma, A. Miros, B. Piatkowski, D. Litwin, J. Galas, S. Sitarek, D. Farias, D. Barredo, R. Miranda, P. Nieto, D. Vandembroucq, and E. Sondergard, 24<sup>th</sup> European Conference on Surface Science, Paris, France, Sept. 2006.
- 192 Alkali Atoms on Cold Helium Droplets: Aggregation, State Selection, Optical Pumping, and Magnetic Dichroism, Wolfgang E. Ernst, Gordon Research Conference on *Electronic Spectroscopy and Dynamics*, Les Diablerets, Switzerland, Sept. 2006 (**invited**).
- 193 Beam Depletion Spectra of K Atoms Attached to Ar Clusters: Experimental Measurements and Quantum Chemistry Calculations, J. Nagl, A. Hauser, C. Callegari, and W. E. Ernst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 194 Laser-induced-fluorescence Excitation and Emission Spectra of the  $1^3\Sigma_u^+ - 1^3\Pi_g$  ( $1^3\Sigma_u^+ - 2^3\Pi_g$ ) Transition in  $K_2$ ,  $Rb_2$  (KRb) on the Surface of Superfluid Helium Droplets, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 195 Identification of Alkali-oligomer Spectra on Helium Nanodroplets by Laser Depletion, O. Allard, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.

- 196 Magnetic Dichroism of Potassium Atoms on the Surface of Helium Nanodroplets, J. Nagl, G. Auböck, C. Callegari, and W. E. Ernst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 197 Excitation and Depletion of Rb Atoms on Superfluid Helium Droplets: a Robust System for Optical Pumping?, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 198 Design, Construction, and Implementation of an Optical Profilometer for Ultra High Vacuum Conditions, K. Fladischer, D. Litwin, J. Galas, S. Sitarek, W. E. Ernst, and B. Holst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 199 The Structure of the alpha-Quarz (0001) Surface Investigated Using Helium Atom Scattering and AFM, W. Steurer, E. Sondergard, W. E. Ernst, T. Sarlat, , and B. Holst, 56. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Graz, Austria, Sept. 2006.
- 200 Magnetic dichroism of alkali atoms and molecules on the surface of helium nanodroplets, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, Frühjahrstagung der Deutschen Physikalischen Gesellschaft (AMOP), Düsseldorf, Germany, March 2007 (Fachvortrag).
- 201 Electron spin relaxation in alkali samples on the surface of helium nanodroplets, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, ECAMP 9, Crete, Greece, May 2007 (hot topic talk).
- 202 Spin relaxation in superfluid helium nanodroplets, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, Jahrestagung der Bunsengesellschaft für Physikalische Chemie, Graz, Austria, May 2007.
- 203 Electron spin lifetimes in alkali samples on the surface of helium nanodroplets, Johann Nagl, Gerald Auböck, Carlo Callegari, and Wolfgang E. Ernst, International Quantum Electronics Conference, Munich, Germany, June 2007.
- 204 Alkali atoms on cold helium droplets: aggregation, state selection, optical pumping, and electronic spin relaxation, Wolfgang E. Ernst, XXIth Dynamics of Molecular Collisions Meeting in Santa Fe, New Mexico, USA, July 2007 (**invited**).
- 205 Observation of the boson peak at the surface of vitreous silica, W. Steurer, A. Apfalter, M. Koch, W. E. Ernst, E. Sondergard, J. R. Manson, and B. Holst, 17<sup>th</sup> International Vacuum Congress & 13<sup>th</sup> International Conference on Surface Science, Stockholm, Sweden, July 2007.
- 206 Observation of the boson peak at the surface of vitreous silica, W. Steurer, A. Apfalter, M. Koch, W. E. Ernst, E. Sondergard, J. R. Manson, and B. Holst, International School of Solid State Physics – Vibrations at Surfaces 12, Erice, Italy, July 2007.
- 207 Boson peak at the glass surface observed by helium atom scattering, W. Steurer, A. Apfalter, M. Koch, W. E. Ernst, E. Sondergard, J. R. Manson, and B. Holst, 57. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Krems, Austria, Sept. 2007.

- 208 Neutral atom focusing using a single crystal silicon wafer, K. Fladischer, H. Reingruber, A. Weeks, W. E. Ernst, and B. Holst, 57. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Krems, Krems, Austria, Sept. 2007.
- 209 Triplet State Excitation of Alkali Molecules on He Droplets, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 57. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Krems, Krems, Austria, Sept. 2007.
- 210 Ab initio Electronic Structure Calculations of Homo- and Heteronuclear Alkali Trimers, A. W. Hauser, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 57. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Krems, Krems, Austria, Sept. 2007.
- 211 Electronic Spectroscopy of van der Waals Bound Alkali Trimers on He Nanodroplets, J. Nagl, G. Auböck, A. W. Hauser, O. Allard, C. Callegari, and W. E. Ernst, 57. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Krems, Krems, Austria, Sept. 2007.
- 212 An investigation of the correlation between the kinetic energy of atoms and the probability of field ionization, J. Piskur, L. Borg, A. Sputnik, M. Leisch, W. E. Ernst, and B. Holst, 3rd International Workshop on Surface Physics - Nanostructures on Surfaces, , Polanica Zdrój, Poland, 10-15 September 2007.
- 213 Beams of atoms and molecules: from atomic waves to cluster formation and cold matter, Wolfgang E. Ernst, ESF-FWF Conference on Quantum Optics: From Photons and Atoms to Molecules and Solid State Systems, Universitätszentrum Obergurgl, Ötz Valley, Innsbruck, Austria, 24 Feb-1 March 2008 (**invited**).
- 214 Probing surface vibrations of amorphous solids by helium atom scattering, Wolfgang E. Ernst, XIth International Workshop on Complex Systems, Andalo (Trento), Italy, 17-20 March 2008.
- 215 Progress in optically-detected spin-resonance on helium droplets, Markus Koch, Gerald Auböck, Johann Nagl, Carlo Callegari, and Wolfgang E. Ernst, 63rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, June 16-20, 2008.
- 216 Magnetic circular dichroism study of spin-orbit splitting in alkali dimers in the presence of a helium surface, Gerald Auböck, Johann Nagl, Carlo Callegari, and Wolfgang E. Ernst, 63rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, June 16-20, 2008.
- 217 Wide-range visible spectroscopy of high-spin alkali trimers on helium droplets, and interpretation of their electronic structure, Johann Nagl, Andreas W. Hauser, Gerald Auböck, Olivier Allard, Carlo Callegari, and Wolfgang E. Ernst, 63rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, June 16-20, 2008.
- 218  $E \otimes e$  vibronic coupling in quartet states of  $Rb_3$  and  $K_3$  on helium droplets, Gerald Auböck, Johann Nagl, Carlo Callegari, and Wolfgang E. Ernst, 63rd International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, June 16-20, 2008.
- 219 Alkali doped Helium Droplets in a Magnetic Field, G. Auböck, J. Nagl, C. Callegari, and W.E. Ernst, 40<sup>th</sup> EGAS Conference, Graz, Austria, 2-5 June 2008.

- 220 Quartet alkali trimers on He nanodroplets: Laser spectroscopy and ab initio calculations, J. Nagl, G. Auböck, A.W. Hauser, O. Allard, C. Callegari, and W.E. Ernst, 40<sup>th</sup> EGAS Conference, Graz, Austria, 2-5 June 2008.
- 221 Progress in optically-detected spin-resonance on helium droplets, M. Koch, J. Lanzenstorfer, G. Auböck, J. Nagl, C. Callegari, and W. E. Ernst, 40<sup>th</sup> EGAS Conference, Graz, Austria, 2-5 June 2008.
- 222 Atomic-like shell models for alkali trimers derived from ab initio calculations, A. W. Hauser, C. Callegari, W.E. Ernst, and P. Soldán, 40<sup>th</sup> EGAS Conference, Graz, Austria, 2-5 June 2008.
- 223 Probing surface vibrations of amorphous solids by helium atom scattering, W. Steurer, B. Holst, J.R. Manson, and W.E. Ernst, 40<sup>th</sup> EGAS Conference, Graz, Austria, 2-5 June 2008.
- 224 Alkali trimers on He nanodroplets: Ab initio calculations, shell models and laser spectroscopy, Johann Nagl, Gerald Auböck, Andreas W. Hauser, Olivier Allard, Carlo Callegari and Wolfgang E. Ernst, 13th International Workshop on Quantum Systems in Chemistry and Physics (QSCP-XIII), Michigan State University, East Lansing, Michigan, USA, 6-12 July 2008.
- 225 Vibrational dynamics at the glass surface studied by grazing incidence IXS, W. Steurer, N. Balak, W. E. Ernst, M. Krisch, S. N. Yannopoulos, T. Scopigno, and G. Ruocco, 13<sup>th</sup> Workshop on Dynamical Phenomena at Surfaces, Cambridge, U.K., 10-13 July 2008.
- 226 Imaging with neutral atoms using a Si(111)-H(1x1) mirror, B. Holst, K. Fladischer, H. Reingruber, W. E. Ernst, D. MacLaren, A. Weeks, W. Allison, B. Surma, A. Miros, B. Piatkowski, D. Litwin, J. Galas, S. Sitarek, D. Farias, D. Barredo, P. Nieto and R. Miranda, ECOSS-25 (European Conference on Surface Science), Liverpool, U.K., 27 July – 1 August 2008.
- 227 Anomalous phonon behavior in silica glass: blueshift of the surface boson peak with increasing temperature, W. Steurer, A. Apfelter, M. Koch, W. E. Ernst, E. Sondergard, J. R. Manson, and B. Holst, ECOSS-25 (European Conference on Surface Science), Liverpool, U.K., 27 July – 1 August 2008.
- 228 A Jahn-Teller analysis of  $K_3$  and  $Rb_3$  in the electronic states  $1^2E'$  and  $1^2E''$ , Andreas W. Hauser, Carlo Callegari, Wolfgang E. Ernst and Pavel Soldán, Sixth Congress of the International Society for Theoretical Chemical Physics (ISTCP-VI), University of British Columbia, Vancouver, Canada, 19-24 July 2008.
- 229 The spectroscopy of alkali trimers on cold helium droplets: Formation of quartet states, their assignment and Jahn-Teller analysis, Gerald Auböck, Johann Nagl, Andreas W. Hauser, Carlo Callegari, and Wolfgang E. Ernst, XIXth International Symposium on the Jahn-Teller Effect: Vibronic Interactions and Orbital Physics in Molecules and in the Condensed Phase, Heidelberg, Germany, 25-29 August 2008.
- 230 Relativistic  $E \otimes e$  vibronic coupling in  $Rb_3$  and  $K_3$  quartet states on helium droplets, G. Auböck, J. Nagl, C. Callegari, and W.E. Ernst, XIXth International Symposium on the Jahn-Teller Effect: Vibronic Interactions and Orbital Physics in Molecules and in the Condensed Phase, Heidelberg, Germany, 25-29 August 2008.

- 231 A Jahn-Teller analysis applied to *ab initio* potentials of  $K_3$  and  $Rb_3$ , Andreas W. Hauser, Carlo Callegari, Wolfgang E. Ernst and Pavel Soldán, XIXth International Symposium on the Jahn-Teller Effect: Vibronic Interactions and Orbital Physics in Molecules and in the Condensed Phase, Heidelberg, Germany, 25-29 August 2008.
- 232 Alkali atoms on helium nanodroplets: aggregation, state selection, and electron spin resonance, Gerald Auböck, Johann Nagl, Markus Koch, Carlo Callegari, and Wolfgang E. Ernst, Latsis-Symposium "Intramolecular Dynamics, Symmetry and Spectroscopy", ETH Zurich, Switzerland, 6-10 September 2008.
- 233 Surface effects on the vibrational dynamics of glasses, W. Steurer, N. Balak, W. E. Ernst, M. Krisch, S. N. Yannopoulos, T. Scopigno, and G. Ruocco, 58. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Leoben, Austria, 22-26 September 2008.
- 234 Alkali atoms on helium nanodroplets: aggregation, state selection, and electronic spin relaxation, Gerald Auböck, Johann Nagl, Markus Koch, Carlo Callegari, and Wolfgang E. Ernst, Congress on "Control of Molecular Processes", L'Accademia Nazionale dei Lincei, Rome, Italy, 2-4 October 2008.
- 235 Poisson's Spot with Molecules, Thomas Reisinger, Amil Patel, Herbert Reingruber, Katrin Fladischer, Wolfgang E. Ernst, Gianangelo Bracco, Henry I. Smith, and Bodil Holst (abstract H16.00002), March Meeting of The American Physical Society, Pittsburgh, PA, USA, March 16-20, 2009.
- 236 High-Spin Aggregates on Helium Nanodroplets: Formation, Optical Pumping, and Electron Spin Resonance, Wolfgang E. Ernst, International Workshop on Quantum Fluid Clusters (QFC-7), Dresden, Germany, 24-27 May 2009 (**invited**).
- 237 Electron-spin resonance and Rabi oscillations on helium nanodroplets, M. Koch, G. Auböck, J. Lanzersdorfer, M. Ratschek, C. Callegari, and W. E. Ernst, International Workshop on Quantum Fluid Clusters (QFC-7), Dresden, Germany, 24-27 May 2009.
- 238 Circular dichroism measurements in helium nanodroplets, C. Callegari, G. Auböck, J. Nagl, and W. E. Ernst, International Workshop on Quantum Fluid Clusters (QFC-7), Dresden, Germany, 24-27 May 2009.
- 239 Relativistic Jahn-Teller effects in the quartet states of  $K_3$  and  $Rb_3$ : A vibrational analysis of the  $2^4E' - 1^4A_2'$  electronic transitions, A. W. Hauser, G. Auböck, C. Callegari, and W. E. Ernst, International Workshop on Quantum Fluid Clusters (QFC-7), Dresden, Germany, 24-27 May 2009.
- 240 Helium droplets as nano-cryostats for molecular spectroscopy: aggregation, state selection and electron spin resonance, Wolfgang E. Ernst, 64<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 22-26 June 2009 (**invited plenary lecture**).
- 241 One- and two-photon spectroscopy of alkali atoms on helium nanodroplets at 3 eV energy, A. Pifradier, O. Allard, G. Auböck, C. Callegari, and W. E. Ernst, 64<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 22-26 June 2009.
- 242 Optically-detected magnetic resonance of alkali atoms isolated on helium nanodroplets, M. Koch, G. Auböck, J. Lanzersdorfer, M. Ratschek, C. Callegari, and W. E. Ernst, 64<sup>th</sup>

- International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 22-26 June 2009.
- 243 Relativistic Jahn-Teller effects in the quartet states of  $K_3$  and  $Rb_3$ : A vibrational analysis of the  $2^4E' - 1^4A_2'$  electronic transitions based on ab initio calculations, A. W. Hauser, G. Auböck, C. Callegari, and W. E. Ernst, 64<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 22-26 June 2009.
- 244 Relativistic Jahn-Teller effects in the quartet states of  $K_3$  and  $Rb_3$ : Experimental and theoretical investigations, G. Auböck, A. W. Hauser, C. Callegari, and W. E. Ernst, 41<sup>st</sup> EGAS Conference, Gdansk, Poland, 7-11 July 2009.
- 245 Electron-Spin Resonance and Rabi Oscillations on Helium Nanodroplets, M. Koch, C. Callegari, and W. E. Ernst, 41<sup>st</sup> EGAS Conference, Gdansk, Poland, 7-11 July 2009.
- 246 Electron-Spin Resonance and Rabi Oscillations on Helium Nanodroplets, M. Ratschek, M. Koch, C. Callegari, and W. E. Ernst, Joint Physics, Astrophysics and Astronomy Conference 2009(ÖPG/SPS/ÖGAA), Innsbruck, Austria, 2-4 September 2009.
- 247 Two-step excitation of Rb atoms on He nanodroplets, M. Theisen, F. Lackner, F. Ancilotto, C. Callegari, and W. E. Ernst, Joint Physics, Astrophysics and Astronomy Conference 2009(ÖPG/SPS/ÖGAA), Innsbruck, Austria, 2-4 September 2009.
- 248 Molecules in Cold Helium Nanodroplets: Formation of High-Spin States and Magnetic Resonance Spectroscopy, Wolfgang E. Ernst, Joint Physics, Astrophysics and Astronomy Conference 2009(ÖPG/SPS/ÖGAA), Innsbruck, Austria, 2-4 September 2009 (**invited plenary lecture**).
- 249 Jahn-Teller effect and spin-orbit coupling in heavy alkali trimers: spectroscopic experiments and ab-initio calculations, Wolfgang E. Ernst, Seventh International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2009), Highlighted Symposium in Computational Spectroscopy, Rhodes, Greece, 29 September - 04 October 2009 (**invited**).
- 250 Coherent spin manipulation and ESR on doped helium clusters, Wolfgang E. Ernst, Clustertreffen 2009, Herzogenhorn-Schwarzwald, Germany, 4 – 9 October, 2009 (**invited**).
- 251 High-Spin Aggregates on Cold Helium Droplets: Formation, Optical Pumping, and Electron Spin Resonance (tentative title), Wolfgang E. Ernst, XVIIth Symposium on Atomic, Cluster and Surface Physics 2010 (SASP2010), Universitätszentrum Obergurgl, Austria, 24 – 29 January, 2010 (**invited**).
- 252 Surface Structure and Dynamics from Helium Atom Scattering Experiments, Wolfgang E. Ernst, 13<sup>th</sup> International Conference on Vibrations at Surface (VAS 13), Orlando, Florida, USA, 10-13 March, 2010 (**invited**).
- 253 Femtosecond spectroscopy of alkali trimers on helium nanodroplets, C. Giese, B. Grüner, L. Fechner, M. Mudrich, F. Stienkemeier; A.W. Hauser, and W.E. Ernst, 65<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 21-25 June 2010.
- 254 Accidental conical intersections in mixed trimers of potassium and rubidium: A vibronic analysis of the  $4^4B_2$  and  $3^4A_1$  states, A. W. Hauser, G. Auböck, C. Callegari and W. E. Ernst.

- Ernst, 65<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 21-25 June 2010.
- 255 Alkali-metal atoms as spin labels on helium nanodroplets, Markus Koch, Martin Ratschek, and Wolfgang E. Ernst, 65<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 21-25 June 2010.
- 256 Two-step excitation of Rb and Cs atoms on He nanodroplets, Moritz Theisen, Florian Lackner, Wolfgang E. Ernst, Francesco Ancilotto, and Carlo Callegari, 65<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 21-25 June 2010.
- 257 Molecules in helium nanodroplets, Wolfgang E. Ernst, Tenth European Conference on Atoms, Molecules, and Photons (ECAMP10), Salamanca, Spain, 4-9 July 2010 **(invited)**.
- 258 Electron spin resonance in doped helium nanodroplets as tool to study magnetic and spin dynamics, M. Koch, M. Ratschek, C. Callegari, and W.E. Ernst, Tenth European Conference on Atoms, Molecules, and Photons (ECAMP10), Salamanca, Spain, 4-9 July 2010.
- 259 Ionization of alkali atoms on He nanodroplets, M. Theisen, F. Lackner, and W. E. Ernst, Tenth European Conference on Atoms, Molecules, and Photons (ECAMP10), Salamanca, Spain, 4-9 July 2010.
- 260 Electron spin resonance on doped helium nanodroplets, Wolfgang E. Ernst, Millikelvin Days, University of Barcelona, Spain, 15 - 16 July, 2010 **(invited)**.
- 261 Helium Atom Scattering from Bi(111): Phonon Dispersion and Structure, A. Tamtögl, M. Mayrhofer-Reinhartshuber, W. E. Ernst, and K.-H. Rieder, 14<sup>th</sup> Workshop on Dynamical Phenomena at Surfaces, Schloss Ringberg, Tegernsee, Germany, 18 – 21 July 2010.
- 262 Electronic shell models for small alkali clusters, Wolfgang E. Ernst, 2 lectures, Summer School on "Shell Effects in Finite Quantum Systems", Majorana Centre in Erice, Sicily, Italy, 25 – 31 July, 2010 **(invited)**.
- 263 Electron spin resonance on superfluid helium nanodroplets, M. Ratschek, M. Koch, J. Poms, A. Volk, C. Callegari, and W. E. Ernst, Summer School on "Shell Effects in Finite Quantum Systems", Majorana Centre in Erice, Sicily, Italy, 25 – 31 July, 2010.
- 264 Jahn-Teller effect and spin-orbit coupling in heavy alkali trimers, Wolfgang E. Ernst, 20<sup>th</sup> International Symposium on the Jahn-Teller Effect, Fribourg, Switzerland, 17 – 20 August, 2010 **(invited)**.
- 265 The Bi(111) Surface: Structure and Phonon Dispersion from HAS, A. Tamtögl, M. Mayrhofer-Reinhartshuber, W. E. Ernst, and K.-H. Rieder, 27<sup>th</sup> European Conference on Surface Science, Groningen, Netherlands, 29 Aug. – 3 Sep. 2010.
- 266 Electron Spin Resonance in Doped Helium Nanodroplets as Tool to Study Magnetic Properties and Spin Dynamics, M. Ratschek, M. Koch, J. Poms, A. Volk, C. Callegari, and W. E. Ernst, 60th Annual Meeting Austrian Physical Society, Salzburg, Austria, 6 – 9 Sep. 2010.

- 267 Photoionization of Rb Atoms on He Nanodroplets, F. Lackner, M. Theisen, and W. E. Ernst, 60th Annual Meeting Austrian Physical Society, Salzburg, Austria, 6 – 9 Sep. 2010.
- 268 Ab Initio Spin Densities of Small Alkali-Metal Doped Helium Droplets, T. Gruber, A. W. Hauser, and W. E. Ernst, 60th Annual Meeting Austrian Physical Society, Salzburg, Austria, 6 – 9 Sep. 2010.
- 269 Structure and Phonon Dispersion of Bi(111) from He Atom Scattering, M. Mayrhofer-Reinhartshuber, A. Tamtögl, W. E. Ernst, and K.-H. Rieder, 60th Annual Meeting Austrian Physical Society, Salzburg, Austria, 6 – 9 Sep. 2010.
- 270 Spectroscopy of Doped Helium Droplets – Methods and Results, Wolfgang E. Ernst, XXIV International Symposium on Molecular Beams, Bordeaux, France, 23 – 27 May 2011 (**invited**).
- 271 **Opening lecture** on: HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, WE-Heraeus Seminar Nr. 482 (organized by W. E. Ernst and M. Koch), Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 272 Experimental Investigation of nS, nP, and nD Rydberg Series of Cs Atoms on Helium Nanodroplets, F. Lackner, G. Krois, M. Theisen, M. Koch, and W. E. Ernst, 482<sup>nd</sup> WE-Heraeus Seminar on HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 273 Electron Spin Resonance on Helium Nanodroplets as Diagnostic Tool for Magnetic Properties and Spin Dynamics, M. Koch, J. Poms, A. Volk, M. Ratschek, and W. E. Ernst, 482<sup>nd</sup> WE-Heraeus Seminar on HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 274 Chromium Doped He<sub>N</sub> and the Formation of Chromium Oligomers inside He<sub>N</sub>, M. Ratschek, M. Koch, and W. E. Ernst, 482<sup>nd</sup> WE-Heraeus Seminar on HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 275 Ionization of Rb (Cs) Atoms and Rb<sub>n</sub> (Cs<sub>n</sub>) Clusters on He Droplets, M. Theisen, F. Lackner, and W. E. Ernst, 482<sup>nd</sup> WE-Heraeus Seminar on HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 276 Femtosecond Spectroscopy of Alkali (K, Rb) Trimers and Picosecond Spectroscopy of RbHe Exciplexes Formed on He Nanodroplets, Ch. Giese, B. Grüner, T. Mullins, M. Weidemüller, F. Stienkemeier, M. Mudrich, A. Hauser, and W. Ernst, 482<sup>nd</sup> WE-Heraeus Seminar on HELIUM NANODROPLETS: Confinement for Cold Molecules and Cold Chemistry, Physikzentrum Bad Honnef, Germany, May 29 - June 1, 2011.
- 277 Electron Spin Resonance of <sup>87</sup>Rb Monomers on Superfluid Helium Nanodroplets and Introduction of a Simple Model for Optical Pumping, A. Volk, J. Poms, M. Koch, and W.E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Lausanne, Switzerland, June 15 – 17, 2011.

- 278 High-Spin States of Heavy Alkali Trimers, A. W. Hauser, G. Auböck, and W. E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Lausanne, Switzerland, June 15 – 17, 2011.
- 279 Temperature Dependent Surface Measurements on Bi(111) by He Atom Scattering, M. Mayrhofer-Reinhartshuber, A. Tamtögl, P. Kraus, W. E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Lausanne, Switzerland, June 15 – 17, 2011.
- 280 Calculation of surface phonon dispersions on Bi(111), Patrick Kraus, Michael Mayrhofer-Reinhartshuber, Anton Tamtögl, Giorgio Benedek, and Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Lausanne, Switzerland, June 15 – 17, 2011.
- 281 Optical Pumping and Electron Spin Resonance of Single  $^{87}\text{Rb}$  Atoms on Helium Nanodroplets, M. Koch, J. Poms, A. Volk, and W. E. Ernst, 66<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 20-24 June 2011.
- 282 Highly Excited States of Cs Atoms on Helium Nanodroplets, F. Lackner, M. Theisen, M. Koch, and W.E. Ernst, 66<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 20-24 June 2011.
- 283 Resonant Two-Step Ionization of Rb and Cs Atoms on Helium Nanodroplets, F. Lackner, M. Theisen, and W.E. Ernst, 66<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 20-24 June 2011.
- 284 Ionization of Rb (Cs) atoms and  $\text{Rb}_n$  ( $\text{Cs}_n$ ) clusters on He droplets, M. Theisen, F. Lackner, and W. E. Ernst, 43<sup>rd</sup> EGAS Conference, Fribourg, Switzerland, June 28 – July 2, 2011.
- 285 Excitation and ionization of highly excited Cs atoms on helium nanodroplets, F. Lackner, G. Krois, M. Theisen, M. Koch, and W. E. Ernst, 43<sup>rd</sup> EGAS Conference, Fribourg, Switzerland, June 28 – July 2, 2011.
- 286 Electron Spin Resonance of  $^{87}\text{Rb}$  Monomers on Superfluid Helium Nanodroplets: Optical Pumping Scheme and Line Shape Analysis, J. Poms, A. Volk, M. Koch, and W. E. Ernst, 43<sup>rd</sup> EGAS Conference, Fribourg, Switzerland, June 28 – July 2, 2011.
- 287 Electron Spin Resonance in Doped Helium Nanodroplets: Progress and New Results, Markus Koch, Johannes Poms, Alexander Volk, Martin Ratschek, and Wolfgang E. Ernst, International Meeting on Atomic and Molecular Physics and Chemistry, Rennes, France, July 5-8, 2011 (M. Koch invited).
- 288 Rydberg Series of Cs Atoms on Helium Nanodroplets, Florian Lackner, Günter Krois, Moritz Theisen, Markus Koch and Wolfgang E. Ernst, International Meeting on Atomic and Molecular Physics and Chemistry, Rennes, France, July 5-8, 2011.
- 289 Chromium and Small Chromium Clusters in Superfluid Helium Nanodroplets, M. Ratschek, M. Koch, W. E. Ernst, International Meeting on Atomic and Molecular Physics and Chemistry, Rennes, France, July 5-8, 2011.
- 290 Alkali atoms and molecules on cold helium clusters: spin relaxation due to collisional interactions, Wolfgang E. Ernst, The Fifth International Symposium "Atomic Cluster Collisions", Berlin, Germany, 20 – 25 July 2011 (**invited**).

- 291 Spectroscopy of Doped Helium Droplets: Weakly Bound Clusters, Rydberg States, and Electron Spin Resonance, Wolfgang E. Ernst, 22<sup>nd</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 28 Aug. – 2 Sep. 2011 (**invited plenary lecture**).
- 292 Surface structure and vibrational dynamics of Bi(111) using helium atom diffraction measurements, A. Tamtögl, M. Mayrhofer-Reinhartshuber, P. Kraus, W. E. Ernst, and G. Benedek, 28<sup>th</sup> European Conference on Surface Science, Wroclaw, Poland, Aug. 28 – Sept. 2, 2011.
- 293 Investigation of surface phonons by inelastic helium atom scattering of the Bi(111) surface, M. Mayrhofer-Reinhartshuber, A. Tamtögl, P. Kraus, W. E. Ernst, D. Campi, and G. Benedek, 28<sup>th</sup> European Conference on Surface Science, Wroclaw, Poland, Aug. 28 – Sept. 2, 2011.
- 294 Cs–He<sub>N</sub> Rydberg series, Florian Lackner, Günter Krois, Moritz Theisen, Markus Koch and Wolfgang E. Ernst, XVIIIth Symposium on Atomic, Cluster, and Surface Physics, Alpe d’Huez, France, Jan. 22-27, 2012.
- 295 Cr clusters in helium nanodroplets, Matthias Hasewend, Andreas Kautsch, Martin Raschek, Markus Koch and Wolfgang E. Ernst, XVIIIth Symposium on Atomic, Cluster, and Surface Physics, Alpe d’Huez, France, Jan. 22-27, 2012.
- 296 PHOTOIONIZATION SPECTROSCOPY OF ISOLATED Cr ATOMS IN ULTRACOLD HELIUM NANODROPLETS, ANDREAS KAUTSCH, MATTHIAS HASEWEND, MARTIN RATSCHKE, MARKUS KOCH, and WOLFGANG E. ERNST, 67<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 18-22 June 2012.
- 297 RUBIDIUM ATOMS ON HELIUM DROPLETS: ANALYSIS OF AN EXOTIC RYDBERG COMPLEX, FLORIAN LACKNER, GÜNTER KROIS, MARKUS KOCH, and WOLFGANG E. ERNST, 67<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 18-22 June 2012.
- 298 PHOTOIONIZATION OF ALKALI\_DOPED HELIUM NANODROPLETS, Moritz Theisen, Florian Lackner, Günter Krois, Markus Koch, and Wolfgang E. Ernst, 67<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 18-22 June 2012.
- 299 Cluster formation at 0.4 K in superfluid helium nanodroplets, M. Koch, F. Lackner, M. Ratschek, M. Theisen, A. Volk, E. Fisslthaler, W. Grogger, and W. E. Ernst, INTERNATIONAL SYMPOSIUM ON SMALL PARTICLES AND INORGANIC CLUSTERS XVI, Leuven, Belgium, July 8-13, 2012.
- 300 Cluster synthesis and formation of core-shell structures in superfluid helium nanodroplets, Alexander Volk, Markus Koch, Evelin Fisslthaler, Werner Grogger, Wolfgang E. Ernst, INTERNATIONAL SYMPOSIUM ON SMALL PARTICLES AND INORGANIC CLUSTERS XVI, Leuven, Belgium, July 8-13, 2012.
- 301 Alkali atoms on superfluid helium droplets – laser excitation of an exotic Rydberg complex, Florian Lackner, Günter Krois, Markus Koch, and Wolfgang E. Ernst, 44<sup>th</sup> EGAS Conference, Gothenburg, Sweden, July 9-13, 2012.

- 302 Homo- and Heteronuclear Alkali Trimers – Conical Intersections and Spin-Orbit Coupling, Wolfgang E. Ernst and Andreas W. Hauser, 21<sup>st</sup> International Symposium on the Jahn-Teller Effect, Tsukuba, Japan, 26 – 31 August 2012 (**invited**).
- 303 Temperature dependent measurements of the phonon dispersion of Bi(111), A. Tamtögl, P. Kraus, M. Mayrhofer-Reinhartshuber, W. E. Ernst, D. Campi, G. Benedek, 29<sup>th</sup> European Conference on Surface Science, Edinburgh, U.K., Sept. 3-7, 2012.
- 304 Exploiting Resonance Effects on Bi(111), P. Kraus, A. Tamtögl, M. Mayrhofer-Reinhartshuber, D. Campi, G. Benedek, W.E. Ernst, 29<sup>th</sup> European Conference on Surface Science, Edinburgh, U.K., Sept. 3-7, 2012.
- 305 Cold Chemistry in Helium Droplets, Wolfgang E. Ernst, VIIth Workshop on Atomic and Molecular Physics, Jurata, Poland, 11 – 14 September 2012 (**invited**).
- 306 Helium – from Matter Waves to Quantum Fluid Clusters, Wolfgang E. Ernst, Berlin Symposium on Surface Science: From Reciprocal to Real Space, 12 – 14 September 2012 (**invited**).
- 307 Phonon modes and resonance effects measured with helium atom scattering from the Bi(111) surface, Michael Mayrhofer-Reinhartshuber, Patrick Kraus, Anton Tamtögl, Davide Campi, Giorgio Benedek, and Wolfgang E. Ernst, 14<sup>th</sup> International Conference on Vibrations at Surface (VAS 14), Kobe, Japan, 24-28 September, 2012.
- 308 Observation of non-adiabatic Kohn anomalies on Bi(111) - Inducing spin-flip electronic transitions using helium atom scattering, Patrick Kraus, Michael Mayrhofer-Reinhartshuber, Anton Tamtögl, Giorgio Benedek, and Wolfgang E. Ernst, 14<sup>th</sup> International Conference on Vibrations at Surface (VAS 14), Kobe, Japan, 24-28 September, 2012.
- 309 Deposition of Metal Clusters Formed Inside Superfluid Helium Nanodroplets, A. Volk, M. Koch, E. Fisslthaler, W. Grogger, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.
- 310 Bismuth surface phonon modes from helium atom scattering experiments, A. Tamtögl, M. Mayrhofer-Reinhartshuber, P. Kraus, G. Benedek, D. Campi, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.
- 311 Fano resonances in photoionization spectra of chromium in helium nanodroplets, A. Kautsch, M. Ratschek, M. Koch, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.
- 312 Rubidium atom Rydberg states perturbed by superfluid helium nanodroplets, F. Lackner, G. Krois, M. Koch, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.
- 313 Quantum chemical studies of Cr atoms on superfluid He nanodroplets, J. Pototschnig, M. Ratschek, A. W. Hauser, M. Koch, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.
- 314 The calculation of ESR line shifts of alkali-metal atoms (Li, Na, K, Rb) on helium nanodroplets, A. W. Hauser, T. Gruber, and W. E. Ernst, 62<sup>nd</sup> Annual Meeting Austrian Physical Society, Graz, Austria, 18 – 21 Sep. 2012.

- 315 Dynamics of molecules and clusters in superfluid helium droplets, Wolfgang E. Ernst, International Conference on Electronic Structure and Dynamics of Molecules and Clusters, Kolkata, India, 17th - 20th February, 2013 **(invited)**.
- 316 Surface Dynamics of Sb(111) Measured with Helium Atom Scattering, Michael Mayrhofer-Reinhartshuber, Anton Tamtögl, Patrick Kraus, Markus Polanz, Wolfgang E. Ernst, Frühjahrstagung der Deutschen Physikalischen Gesellschaft (Sektion Kondensierte Materie), Regensburg, Germany, 10-15 March 2013.
- 317 Alkali metal – alkaline earth metal molecules on helium droplets – spectroscopy of LiCa and RbSr, Günter Krois, Florian Lackner, and W.E. Ernst, 25<sup>th</sup> International Symposium on Molecular Beams, Prague, Czech Republic, 9-13 June 2013.
- 318 Semi-metal surfaces: A new territory for helium atom scattering measurements, A. Tamtögl, M. Mayrhofer-Reinhartshuber, P. Kraus, M. Polanz, D. Campi, G. Benedek, and W. E. Ernst, 25<sup>th</sup> International Symposium on Molecular Beams, Prague, Czech Republic, 9-13 June 2013.
- 319 Metal atoms in helium nanodroplets – from electron spin resonance to multiphoton ionization spectroscopy, Wolfgang E. Ernst, International Conference on Quantum Fluid Clusters (QFC 2013), Regensburg, Germany, 16-19 June 2013 **(invited)**.
- 320 Excited State Dynamics of Transition Metal Atoms Doped to Helium Nanodroplets, Andreas Kautsch, Friedrich Lindebner, Markus Koch, and Wolfgang E. Ernst, International Conference on Quantum Fluid Clusters (QFC 2013), Regensburg, Germany, 16-19 June 2013.
- 321 Morphologies of Ag clusters grown in superfluid helium nanodroplets, P. Thaler, A. Volk, M. Koch, E. Fisslthaler, W. Grogger and W. E. Ernst, International Conference on Quantum Fluid Clusters (QFC 2013), Regensburg, Germany, 16-19 June 2013.
- 322 Spectroscopy of LiCa and RbSr molecules on helium nanodroplets, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 68<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2013.
- 323 Excited states of the diatomic molecule CrHe, Johann V. Pototschnig, Martin Ratschek, Andreas W. Hauser, and Wolfgang E. Ernst, 68<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2013.
- 324 Spectroscopy of Li atoms and Li dimers in the triplet manifold on the surface of helium nanodroplets, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 68<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2013.
- 325 Rydberg states of Rb and Cs atoms on helium nanodroplets: a Rydberg-Ritz analysis, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 68<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2013.
- 326 ESR spectra of alkali-metal atoms on helium nanodroplets: a theoretical model for the prediction of helium induced hyperfine structure shifts, Andreas W. Hauser, Mikail Filatov, and Wolfgang E. Ernst, 68<sup>th</sup> International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2013.
- 327 Xe and Rb atoms on helium nanodroplets: Is the Van der Waals attraction strong enough to form a molecule?, Johannes Poms, Andreas W. Hauser, and Wolfgang E. Ernst, 68<sup>th</sup>

- International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA, 17-21 June 2012.
- 328 Morphologies of Ag clusters grown in superfluid helium nanodroplets, P. Thaler, A. Volk, M. Koch, E. Fisslthaler, W. Grogger and W. E. Ernst, Eleventh European Conference on Atoms, Molecules, and Photons (ECAMP11), Aarhus, Denmark, 24-18 June 2013.
- 329 Cluster Aggregation, Spin Dynamics, and Cold Reactions in Doped Helium Droplets, Wolfgang E. Ernst, 32nd International Symposium on Free Radicals, Potsdam, Germany, 21 – 26 July 2013 (**invited**).
- 330 Morphologies of Ag clusters grown in superfluid helium nanodroplets, A. Volk, P. Thaler, M. Koch, E. Fisslthaler, W. Grogger and W. E. Ernst, Gordon Research Conference: “Clusters, Nanocrystals & Nanostructures“, South Hadley, Massachusetts, USA, 04.-09. August 2013.
- 331 Cold Chemistry in Helium Droplets, Wolfgang E. Ernst, **invited keynote lecture**, 44th WORLD CHEMISTRY CONGRESS (IUPAC), Istanbul, Turkey, 11-16 August 2013.
- 332 Rydberg states of alkali atoms on helium nanodroplets: Screening effects of a nanosized helium dielectric, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 23<sup>rd</sup> Colloquium on High Resolution Molecular Spectroscopy, Budapest, Hungary, 26-30 August 2013.
- 333 Alkali – alkaline earth diatomics on helium nanodroplets: Spectroscopy of LiCa and RbSr, Florian Lackner, Günter Krois, Johann V. Pototschnig, and Wolfgang E. Ernst, 23<sup>rd</sup> Colloquium on High Resolution Molecular Spectroscopy, Budapest, Hungary, 26-30 August 2013.
- 334 Spectroscopic and Theoretical Studies of Chromium Doped Helium Nanodroplets, Andreas Kautsch, Martin Ratschek, Friedrich Lindebner, Markus Koch, and Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Linz, Austria, 03-06 September 2013.
- 335 Theoretical Investigation of Excited States of the Diatomic Molecule LiCa, Johann V. Pototschnig, Günter Krois, Florian Lackner, Andreas W. Hauser, and Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Linz, Austria, 03-06 September 2013.
- 336 Helium Atom Scattering Measurements of the Sb(111) Surface, Michael Mayrhofer-Reinhartshuber, Markus Polanz, Patrick Kraus, Anton Tamtögl, and Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Linz, Austria, 03-06 September 2013.
- 337 Indication of phonon-assisted electron-hole relaxations on Sb(111) and Bi(111) in iHAS measurements, Patrick Kraus, Michael Mayrhofer-Reinhartshuber, Anton Tamtögl, Giorgio Benedek, and Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Linz, Austria, 03-06 September 2013.
- 338 Generation of multiply twinned Ag clusters ( $n < 6000$ ) in superfluid helium nanodroplets, Philipp Thaler, Alexander Volk, Evelin Fisslthaler, Markus Koch, Werner Grogger, and

- Wolfgang E. Ernst, Joint Annual Meeting of the Swiss Physical Society & Austrian Physical Society, Linz, Austria, 03-06 September 2013.
- 339 Helium Atom Scattering Measurements of the Surface Structure and Dynamics of Sb(111), Michael Mayrhofer-Reinhartshuber, Anton Tamtögl, Patrick Kraus, Markus Polanz, and Wolfgang E. Ernst, 15<sup>th</sup> International Conference on Solid Surfaces (ICSS-15), Paris, France, 09-13 September 2013.
- 340 Alteration of the measured e-ph coupling strength due to surface resonance effects in iHAS measurements, P. Kraus, A. Tamtögl, M. MayrhoferReinhartshuber, G. Benedek, and W.E. Ernst, 15<sup>th</sup> International Conference on Solid Surfaces (ICSS-15), Paris, France, 9-13 September 2013.
- 341 Vibrational Dynamics and Surface Structure of Semimetals from Helium Atom Scattering, Wolfgang E. Ernst, 2<sup>nd</sup> International Workshop on Scattering of Atoms and Molecules from Surfaces (SAMS-2), Potsdam, Germany, 4-7 November 2013 (**invited**).
- 342 Dynamics of molecules and clusters in helium droplets, Wolfgang E. Ernst, XIXth Symposium on Atomic, Cluster and Surface Physics 2014 (SASP2014), Universitätszentrum Obergurgl, Austria, 9 – 14 February, 2014 (**invited**).
- 343 Measuring the mode-selective e-ph interaction constant on Sb(111) using Helium atom scattering, Patrick Kraus, Michael Mayrhofer-R., Florian Apolloner, Christian Gösweiner, Giorgio Benedek, Salvador Miret-Artés, and Wolfgang E. Ernst, DPG-Frühjahrstagung der Sektion Kondensierte Materie, Dresden, Germany, 30 March – 4 April 2014.
- 344 Spectroscopy of Cold RbSr Molecules Formed on Helium Nanodroplets, Florian Lackner, Günter Krois, Johann V. Pototschnig, Thomas Buchsteiner, and Wolfgang E. Ernst, 78. DPG-Jahrestagung und Frühjahrstagung der Sektion AMOP, Berlin, Germany, 17 – 21 March 2014.
- 345 Rydberg states of alkali atoms on helium nanodroplets: Screening effects of a nanosized helium dielectric, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 78. DPG-Jahrestagung und Frühjahrstagung der Sektion AMOP, Berlin, Germany, 17 – 21 March 2014.
- 346 HR-STEM investigations of metallic nanoparticles grown with superfluidal He-droplets, Daniel Knez, Alexander Volk, Philipp Thaler, Evelyn Fisslthaler, Werner Grogger, Wolfgang E. Ernst, Ferdinand Hofer, European Workshop on Spatially-Resolved Electron Spectroscopy & Three Country Workgroup meeting on EELS&EFTEM, Graz, Austria, 23 – 25 April 2014
- 347 Vibrational Dynamics and Surface Structure of Semimetals from Helium Atom Scattering, P. Kraus, M. Mayrhofer-Reinhartshuber, A. Tamtögl, F. Apolloner, Ch. Gösweiner, and W. E. Ernst, EU COST Action MP1303: Understanding and Controlling Nano and Mesoscale Friction, International Workshop, Can Picafort, Mallorca, Spain, 26 – 29 May 2014.
- 348 Generation of multiply twinned Ag clusters ( $n < 6000$ ) in superfluid helium nanodroplets and subsequent surface deposition, P. Thaler, A. Volk, M. Koch, E. Fisslthaler, W. Grogger, and W. E. Ernst, EU COST Action MP1303: Understanding

- and Controlling Nano and Mesoscale Friction, International Workshop, Can Picafort, Mallorca, Spain, 26 – 29 May 2014.
- 349 Electronic relaxation processes of transition metal atoms in helium nanodroplets, Andreas Kautsch, Friedrich Lindebner, Markus Koch, Wolfgang E. Ernst, 69th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 16 - 20 June, 2014.
  - 350 Molecular spectra of RbSr: helium droplet assisted preparation of a diatomic molecule, Florian Lackner, Günter Krois, Thomas Buchsteiner, Johann V. Pototschnig, Wolfgang E. Ernst, 69th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 16 - 20 June, 2014.
  - 351 Electronic excitations of alkali-alkaline earth diatomic molecules - results from ab initio calculations, Johann V. Pototschnig, Günter Krois, Florian Lackner, Wolfgang E. Ernst, 69th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 16 - 20 June, 2014.
  - 352 Sodium trimers: What high resolution spectroscopy can teach us about Jahn-Teller and pseudo Jahn-Teller states, Wolfgang E. Ernst, XXIIInd International Symposium on the Jahn-Teller Effect, Graz, Austria, 18 – 22 August 2014.
  - 353 Vibronic interactions in quartet state alkali trimers: Low resolution spectroscopy accompanied by quantum chemistry calculations, Wolfgang E. Ernst and Andreas W. Hauser, XXIIInd International Symposium on the Jahn-Teller Effect, Graz, Austria, 18 – 22 August 2014.
  - 354 Phonon-assisted electron-hole relaxations on Sb(111) and Bi(111) in iHAS measurements, P. Kraus, F. Apolloner, Ch. Gösweiner, G. Benedek, and W. E. Ernst, XXIIInd International Symposium on the Jahn-Teller Effect, Graz, Austria, 18 – 22 August 2014.
  - 355 Determination of selective adsorption resonance lifetimes on  $^4\text{He}$ -Sb(111), Florian Apolloner, Patrick Kraus, Christian Gösweiner, Michael Mayrhofer-Reinhartshuber, Salvador Miret-Artes, Wolfgang E. Ernst, 30th European Conference on Surface Science (ECOSS-30), Antalya, Turkey, 31 August – 5 September 2014.
  - 356 Unraveling inelastic HAS intensities on Sb(111): Evidence for an extremely low-lying acoustic plasmon mode, Patrick Kraus, Florian Apolloner, Christian Gosweiner, Giorgio Benedek, Wolfgang E. Ernst, 30th European Conference on Surface Science (ECOSS-30), Antalya, Turkey, 31 August – 5 September 2014.
  - 357 HR-STEM investigations of metallic nanoparticles grown with superfluidal He-droplets, Daniel Knez, Alexander Volk, Philipp Thaler, Evelyn Fisslthaler, Werner Grogger, Wolfgang E. Ernst, Ferdinand Hofer, 18th International Microscopy Congress, Prague, Czech Republic, 7 – 12 September 2014.
  - 358 A Combined Theoretical and Experimental Investigation of Alkali - Alkaline Earth Diatomic Molecules, Johann Pototschnig, Florian Lackner, Günter Krois, and Wolfgang E. Ernst, 50<sup>th</sup> Symposium on Theoretical Chemistry, Vienna, Austria, 14 – 16 September 2014.
  - 359 Formation of mono- and bi-metallic nanowires in vortices in superfluid He nanodroplets, Philipp Thaler, Alexander Volk, Florian Lackner, Johannes Steurer,

- Daniel Knez, Werner Grogger, Ferdinand Hofer and Wolfgang E. Ernst, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 360 HR-STEM investigations of metallic nanoparticles grown with superfluid He-droplets Daniel Knez, Philipp Thaler, Alexander Volk, Werner Grogger, Wolfgang E. Ernst, and Ferdinand Hofer, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 361 Inelastic HAS intensities on Sb(111): Indication of a low lying acoustic plasmon mode Patrick Kraus, Florian Apolloner, Christian Gösweiner, Giorgio Benedek, and Wolfgang E. Ernst, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 362 Chromium on superfluid Helium nanodroplets: Theoretical investigation of the ground state and selected excited states, Martin Ratschek, Johann V. Pototschnig, Andreas W. Hauser, and Wolfgang E. Ernst, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 363 Measurement of selective adsorption resonance lifetimes from drift spectra of <sup>4</sup>He-Sb(111), Florian Apolloner, Patrick Kraus, Christian Gösweiner, Michael Mayrhofer-Reinhartshuber, Salvador Miret-Artés, and Wolfgang E. Ernst, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 364 Inelastic close coupling calculations reproducing temperature dependency of helium atom scattering experiments on pnictogen surfaces, Christian Gösweiner, Patrick Kraus, Florian Apolloner, Salvador Miret-Artès, and Wolfgang E. Ernst, 64<sup>th</sup> Annual Meeting of the Austrian Physical Society, Pöllau, Austria, 24 – 27 September 2014.
- 365 Formation of Metal Clusters and Nanowires in Superfluid Helium Droplets and their Surface Deposition, Wolfgang E. Ernst, EU CoDECS COST Action CM1002: Helium-mediated Synthesis, Soft-landing and Spectroscopy of Metal Nanoparticles on Surfaces (HeSSSMe 2014), International Workshop, CSIC, Madrid, Spain, 10-11 October 2014 **(invited)**.
- 366 Molecular Spectroscopy and Dynamics in and on Cold Helium Droplets, Wolfgang E. Ernst, XVIIth International Workshop on Quantum Atomic and Molecular Tunneling in Solids and other Phases, Beatenberg/Interlaken, Switzerland, 31 May - 3 June 2015 **(plenary)**.
- 367 Dynamics of Molecules and Clusters in Helium Droplets, Wolfgang E. Ernst, Workshop on Novel Developments in Classical and Quantum Systems, Padua, Italy, 4-5 June, 2015 **(invited)**.
- 368 Dissociation and Recombination Dynamics of Chromium molecules in Helium Nanodroplets, Markus Koch, Andreas Kautsch, and Wolfgang E. Ernst, International conference on Quantum Fluid Clusters (QFC2015), Toulouse, France, 7 – 11 June 2015.
- 369 Motion of dopants in He-nanodroplets: Challenges and opportunities of a spatial confinement for cluster growth and cold chemistry, Andreas W. Hauser, Johann Pototschnig, Martin Ratschek, Wolfgang E. Ernst, International conference on Quantum Fluid Clusters (QFC2015), Toulouse, France, 7 – 11 June 2015.

- 370 Solvation Dynamics of Metallic Dopants in Helium Droplets, Wolfgang E. Ernst, 2015 International conference on Quantum Fluid Clusters (QFC2015), Toulouse, France, 7 – 11 June 2015 **(invited)**.
- 371 Spectroscopic accuracy in quantum chemistry: a benchmark study on Na<sub>3</sub>, Andreas W. Hauser, Johann Pototschnig and Wolfgang E. Ernst, 70th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 22 - 26 June, 2015.
- 372 Sign changes in the electric dipole moment of excited states in rubidium-alkaline earth diatomic molecules, Johann V. Pototschnig, Florian Lackner, Andreas W. Hauser, Wolfgang E. Ernst, 70th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 22 - 26 June, 2015.
- 373 Investigation of surface structure and diffusion dynamics of hydrogen adsorbed on Sb(111), Christian Gösweiner, Patrick Kraus, Florian Apolloner and Wolfgang E. Ernst, 15<sup>th</sup> International Conference on Vibrations at Surface (VAS 15), San Sebastian, Spain, 22-26 June, 2015.
- 374 Measuring the Sb(111)-phonon dispersion using HAS: Evidence for an extremely low-lying acoustic plasmon mode, Patrick Kraus, Florian Apolloner, Christian Gösweiner, Giorgio Benedek, and Wolfgang E. Ernst, 15th International Conference on Vibrations at Surface (VAS 15), San Sebastian, Spain, 22-26 June, 2015.
- 375 Electron beam induced oxidation of nickel nanoclusters, Daniel Knez, Alexander Volk, Philipp Thaler, Werner Grogger, Wolfgang E. Ernst, and Ferdinand Hofer, Multinational Congress on Microscopy, Eger, Hungary, 23 – 28 Aug. 2015.
- 376 Preparation and spectroscopy of alkali-alkaline earth diatomics on cold helium droplets, F. Lackner, J. Pototschnig, and W. E. Ernst, 24<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 24 – 28 Aug. 2015.
- 377 A quantum chemistry study of the Na<sub>3</sub> ground state: tunneling, fine and hyperfine structure in a classical jahn-teller system, A.W. Hauser, J. Pototschnig, and W. E. Ernst, 24<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 24 – 28 Aug. 2015.
- 378 Helium droplets as nanolabs for cluster growth and ultracold chemistry, Andreas W. Hauser and Wolfgang E. Ernst, “Molecules in Motion”, MOLIM Cost Action, First General Meeting, held at at Universite Paris Est, Marne la Vallee, France, 27 – 29 Aug. 2015.
- 379 Determination of the Sb(111)-phonon dispersion relation using inelastic HAS measurements, Florian Apolloner, Patrick Kraus, Christian Gösweiner, Giorgio Benedek, and Wolfgang E. Ernst, 31st European Conference on Surface Science (ECOSS-31), Barcelona, Spain, 31 Aug - 4 Sept 2015.
- 380 Alkali Rydberg series on helium droplets: Screening effects of a nanosized helium dielectric, Florian Lackner and Wolfgang E. Ernst, 65<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 31 Aug. – 4 September 2015.
- 381 Identification of excited states in alkali – alkaline earth molecules by combination of theory and experiment, J. V. Pototschnig, F. Lackner, A. W. Hauser, and W. E. Ernst, 65<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 31 Aug. – 4 September 2015.

- 382 Vortex Assisted Growth of Metallic Nanowires in Superfluid Helium Droplets, Alexander Volk, Philipp Thaler, Andreas W. Hauser, Daniel Knez, Werner Grogger, Ferdinand Hofer and Wolfgang E. Ernst, 65th Annual Meeting of the Austrian Physical Society, Vienna, Austria, 31 Aug. – 4 September 2015.
- 383 Formation of Ag-Au core-shell clusters in superfluid helium nanodroplets studied by atomic resolution electron tomography, Philipp Thaler, Georg Haberfehlner, Alexander Volk, Gerald Kothleitner, Wolfgang E. Ernst, 65th Annual Meeting of the Austrian Physical Society, Vienna, Austria, 31 Aug. – 4 September 2015.
- 384 Helium atom scattering measurements revealing the full phononic dispersion of Sb(111), Patrick Kraus, Florian Apolloner, Christian Gösweiner, Giorgio Benedek, and Wolfgang E. Ernst, 65th Annual Meeting of the Austrian Physical Society, Vienna, Austria, 31 Aug. – 4 September 2015.
- 385 Aggregation dynamics of metal dopants in helium nanodroplets, Wolfgang E. Ernst, 7<sup>th</sup> International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Honolulu, Hawaii, USA, 15 – 20 December 2015 (**invited**).
- 386 Helium droplet assisted preparation and spectroscopy of alkali-alkaline earth diatomics, Florian Lackner, Johann Pototschnig, and Wolfgang E. Ernst, 7<sup>th</sup> International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Honolulu, Hawaii, USA, 15 – 20 December 2015.
- 387 Rydberg series of alkali atoms on helium nanodroplets: Probing the screening effects of a nanosized helium dielectric, Florian Lackner and Wolfgang E. Ernst, 7<sup>th</sup> International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Honolulu, Hawaii, USA, 15 – 20 December 2015.
- 388 Formation of Metal Clusters and Nanowires in Superfluid Helium Droplets and their Surface Deposition, Wolfgang E. Ernst, XX<sup>th</sup> Symposium on Atomic, Cluster and Surface Physics (SASP2016), Davos, Switzerland, 7 – 12 February 2016 (**invited**).
- 389 Helium droplet assisted preparation and spectroscopy of alkali-alkaline earth diatomics, Johann Pototschnig, Florian Lackner, and Wolfgang E. Ernst, XX<sup>th</sup> Symposium on Atomic, Cluster and Surface Physics (SASP2016), Davos, Switzerland, 7 – 12 February 2016.
- 390 Formation of Ag-Au core-shell clusters in superfluid helium nanodroplets studied by atomic resolution electron tomography, Philipp Thaler, Georg Haberfehlner, Alexander Volk, Gerald Kothleitner, Wolfgang E. Ernst, 80. Jahrestagung der DPG und DPG-Frühjahrstagung, Regensburg, Germany, 06. - 11. März 2016.
- 391 Vortex Assisted Growth of Metallic Nanowires in Superfluid Helium Droplets, Alexander Volk, Philipp Thaler, Andreas W. Hauser, Daniel Knez, Werner Grogger, Ferdinand Hofer, and Wolfgang E. Ernst, 80. Jahrestagung der DPG und DPG-Frühjahrstagung, Regensburg, Germany, 06. - 11. März 2016.
- 392 Evidence for an extremely low-lying electron-hole excitation mode in the Sb(111)-phonon dispersion measured by HAS, Patrick Kraus, Florian Apolloner, Christian Gösweiner, Giorgio Benedek, and Wolfgang E. Ernst, 80. Jahrestagung der DPG und DPG-Frühjahrstagung, Regensburg, Germany, 06. - 11. März 2016.

- 393 Solvent models - a way to connect He-DFT with standard ab initio techniques, Andreas W. Hauser and Wolfgang E. Ernst, EU COST Action CM 1405 “Molecules in Motion MOLIM”, Work Group Meeting “Algorithm Development and High-Performance Computing”, Bratislava, Slovakia, 21-22 March 2016.
- 394 Creating Nanoparticles in Superfluid Helium Droplets, Wolfgang E. Ernst, 2nd Erwin Schrödinger Symposium: Zero Dimensional Nanostructures, Vienna, Austria, 23-25 May 2016 **(invited)**.
- 395 Bonding of Alkali-Alkaline Earth Molecules in the Lowest  $\Sigma^+$  States of Doublet and Quartet Multiplicity, Johann V. Pototschnig, Andreas W. Hauser, Wolfgang E. Ernst, 71<sup>st</sup> International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 20 – 24 June 2016.
- 396 Vibronic Transitions in the X-Sr Series (X=Li, Na, K, Rb): On the Accuracy of Nuclear Wavefunctions Derived from Quantum Chemistry, Ralf Meyer, Johann V. Pototschnig, Andreas W. Hauser, Wolfgang E. Ernst, 71<sup>st</sup> International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 20 – 24 June 2016.
- 397 Alkali – Alkaline Earth Diatomics: Molecules for Ultracold Physics, F. Lackner, J. Pototschnig, A. W. Hauser, and W. E. Ernst, EU COST Action CM 1405 “Molecules in Motion (MOLIM)”, International Workshop, Helsinki, Finland, 22 - 24 August 2016 **(invited)**.
- 398 Surface dynamics and atom-surface interaction of topological insulators from helium atom scattering, A. Tamtögl, P. Kraus, M. Bianchi, P. Hofmann J. Ellis, W. Allison, and W. E. Ernst, 3rd International Conference on Scattering of Atoms and Molecules from Surfaces (SAMS-3), Bergen, Norway, 23 – 26 August 2016.
- 399 Tunneling, fine and hyperfine structure in a classical Jahn-Teller system: the Na<sub>3</sub> ground state, Wolfgang E. Ernst, XXIII<sup>rd</sup> International Symposium on the Jahn-Teller Effect, Tartu, Estonia, 27-31 August 2016 **(invited)**.
- 400 Determination of the Atom-Surface Interaction Potential for a Topological Insulator: <sup>3</sup>He-Bi<sub>2</sub>Te<sub>3</sub>(111), M. Pusterhofer, P. Kraus, A. Tamtögl, A. Ruckhofer, W. Allison, W.E. Ernst, 32<sup>nd</sup> European Conference on Surface Science (ECOSS-32), Grenoble, France, 28 Aug. – 2 Sept. 2016.
- 401 Adsorption Properties of Hydrogen on Antimony(111) Probed by Helium Atom Scattering, A. Ruckhofer, P. Kraus, C. Gösweiner, A. Tamtögl, M. Pusterhofer, F. Apolloner and W.E. Ernst, 32<sup>nd</sup> European Conference on Surface Science (ECOSS-32), Grenoble, France, 28 Aug. – 2 Sept. 2016.
- 402 Formation of bimetallic clusters in superfluid helium nanodroplets analysed by atomic resolution electron tomography, Georg Haberfehlner, Philipp Thaler, Daniel Knez, Alexander Volk, Ferdinand Hofer, Wolfgang E. Ernst, Gerald Kothleitner, The 16<sup>th</sup> European Microscopy Congress (EMC 2016), Lyon, France, 28 Aug. – 2 Sept. 2016.
- 403 Atoms in Motion: Electron radiation dynamics in experiment and simulation, Daniel Knez, Alexander Volk, Philipp Thaler, Wolfgang Ernst, Ferdinand Hofer, The 16<sup>th</sup> European Microscopy Congress (EMC 2016), Lyon, France, 28 Aug. – 2 Sept. 2016.
- 404 Acetone multi-channel photofragmentation dynamics studied by time-resolved photoelectron-photoion coincidence spectroscopy, M. Bainschab, P. Maierhofer, B.

- Thaler, P. Heim, W. E. Ernst and M. Koch, MOLEC 2016 (XXIst European Conference on the Dynamics of Molecular Systems), Toledo, Spain, 11 – 16 September 2016.
- 405 Acetone multi-channel photofragmentation dynamics studied by time-resolved photoelectron-photoion coincidence spectroscopy, M. Bainschab, P. Maierhofer, B. Thaler, P. Heim, W. E. Ernst and M. Koch, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 406 Temperature stability measurement of mono-metallic nanowires in superfluid helium nanodroplets studied by atomic resolution electron tomography, Maximilian Lasserus, Martin Schnedlitz, Andreas Hauser, Daniel Knez, Alexander Volk, Ferdinand Hofer, Wolfgang E. Ernst, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 407 Model calculations for coherent optical transfer in alkali-strontium molecules, J. V. Pototschnig, R. Meyer, A. W. Hauser, W. E. Ernst, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 408 Adsorption Properties of Hydrogen on Antimony(111) Probed by Helium Atom Scattering, A. Ruckhofer, P. Kraus, C. Gösweiner, A. Tamtögl, M. Pusterhofer, F. Apolloner and W.E. Ernst, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 409 Molecular dynamics simulations of experimentally observed diffusion processes on the surface of metallic nanowires, Martin Schnedlitz, Maximilian Lasserus, Andreas Hauser, Daniel Knez, Alexander Volk, Ferdinand Hofer, Wolfgang E. Ernst, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 410 Electron-Phonon Coupling and Atom-Surface Interaction of the Topological Insulator Bi<sub>2</sub>Te<sub>3</sub>(111), A. Tamtögl, P. Kraus, M. Bianchi, P. Hofmann J. Ellis, W. Allison, and W. E. Ernst, 66<sup>th</sup> Annual Meeting of the Austrian Physical Society, Vienna, Austria, 26. - 29. September 2016.
- 411 Surface deposition of metal clusters and nanowires formed in superfluid helium droplets, Wolfgang E. Ernst, Fourth International Conference "Dynamics of Systems on the Nanoscale" (DySoN 2016), Bad Ems, Germany, 3-7 October 2016 (**invited**).
- 412 Bimetallic nanoparticles formed in helium nanodroplets: Structural features and their dependence on temperature, Andreas W. Hauser and Wolfgang E. Ernst, 4<sup>th</sup> Thomas Young Centre Energy Materials Workshop, King's College London, London, U.K., 14-16 December 2016.
- 413 Non-adiabatic molecular photofragmentation dynamics studied by time-resolved photoelectron-photoion coincidence spectroscopy, B. Thaler, P. Heim, W. E. Ernst and M. Koch, From Workshop "Ultrafast to Ultraslow Dynamics in Molecules and Clusters", EU-COST CM1204, Weizmann Institute, Rehovot, Israel, 23 to 25 January 2017.
- 414 Gold doped helium nanodroplets: Electronic spectroscopy from atoms to nanoparticles, Florian Lackner, Maximilian Lasserus, Roman Messner, Martin Schnedlitz, Alexander Volk, Philipp Thaler, and Wolfgang E. Ernst, DPG-Frühjahrstagung der Sektion AMOP, Mainz, Germany, 6 – 10 March 2017.

- 415 Alkali – Alkaline Earth Diatomics: Molecules for Ultracold Physics, Wolfgang E. Ernst, AnalytiX 2017, Fukuoka, Japan, 22-24 March 2017 **(invited)**.
- 416 Atomic-scale diffusion and friction on a topological insulator surface: H<sub>2</sub>O on Bi<sub>2</sub>Te<sub>3</sub>(111), A. Tamtög, N. Avidor, I. Calvo-Almazán, P. Townsend, D. J. Ward, M. Bianchi, P. Hofmann, J. Ellis, W. Allison, M. Sacchi and W. E. Ernst, Interdisciplinary Surface Science Conference (ISSC-21), Manchester, U.K., 10–13 April 2017.
- 417 Metallic Nanoparticles Prepared in Superfluid Helium Droplets: Structure, Phase Transitions, Alloy Formation, M. Schnedlitz, M. Lasserus, D. Knez, A. W. Hauser, F. Hofer, and W. E. Ernst, Castleman Symposium on Cluster Science, US National Academy of Science, Washington, D.C., USA, 20-21 April 2017 **(invited)**.
- 418 Electron beam induced dynamics of atoms and clusters in experiment and simulation, Daniel Knez, Georg Haberfehlner, Philipp Thaler, Alexander Volk, Wolfgang E. Ernst, Gerald Kothleitner, Tom Furnival, Paul Midgley, and Ferdinand Hofer, Fourth Conference on Frontiers of Aberration Corrected Electron Microscopy – PICO 2017 – Kasteel Vaalsbroek, Netherlands, 30 April to 4 May 2017.
- 419 Metal clusters and nanowires prepared in superfluid helium droplets: structure, phase transitions and alloy formation at atomic resolution, Wolfgang E. Ernst, Conference on Quantum Fluid Clusters (QFC 2017), Conference Center Obergurgl, Austria, 7 – 9 June 2017 **(invited)**.
- 420 On the submersion of alkali metals in pristine and doped helium nanodroplets, Lorenz Kranabetter, Alexander Kaiser, Michael Renzler, Matthias Daxner, Andreas W. Hauser, Wolfgang E. Ernst, Albrecht Lindinger, Robert E. Zillich, Andrew M. Ellis, Paul Scheier, Conference on Quantum Fluid Clusters (QFC 2017), Conference Center Obergurgl, Austria, 7 – 9 June 2017.
- 421 Gold doped helium nanodroplets: from atomic spectroscopy to localized surface plasmon resonances in deposited nanoparticles, Florian Lackner, Roman Messner, Alexander Schiffmann, Maximilian Lasserus, Martin Schnedlitz, Daniel Knez, Georg Haberfehlner, Gerald Kothleitner, Ferdinand Hofer, and Wolfgang E. Ernst, Conference on Quantum Fluid Clusters (QFC 2017), Conference Center Obergurgl, Austria, 7 – 9 June 2017.
- 422 Rydberg states of alkali metal atoms on superfluid helium droplets - theoretical considerations, Johann V. Pototschnig, Florian Lackner, Andreas W. Hauser, Wolfgang E. Ernst, 72<sup>nd</sup> International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 19 – 23 June 2017.
- 423 Influence of spin-orbit quenching on the solvation of indium in helium droplets, Ralf Meyer, Johann V. Pototschnig, Wolfgang E. Ernst, Andreas W. Hauser, 72<sup>nd</sup> International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 19 – 23 June 2017.
- 424 Ultrafast molecular photodissociation dynamics studied by femtosecond photoelectron-photoion coincidence spectroscopy, Bernhard Thaler, Pascal Heim, Wolfgang E. Ernst, Markus Koch, 72<sup>nd</sup> International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA, 19 – 23 June 2017.
- 425 Atomic-Scale Diffusion and Friction on a Topological Insulator Surface: H<sub>2</sub>O on Bi<sub>2</sub>Te<sub>3</sub>(111), A Tamtögl, N. Avidor, I. Calvo-Almazán, P. Townsend, D. J. Ward, M.

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- 426 Acetone Non-Adiabatic Rydberg State Dynamics: Relaxation and Fragmentation Studied by Femtosecond Photoelectron-Photoion Coincidence Spectroscopy, S. Cesnik, P. Heim, S. Ranftl, B. Thaler, W.E. Ernst, M. Koch, FEMTO13 Conference, Cancún, México, 12 – 17 August 2017.
- 427 Alkali-metal – alkaline-earth-metal diatomics: analysis of de-excitation mechanisms for population transfer from weakly bound states to the lowest ground state levels, Johann V. Pototschnig, Ralf Meyer, Andreas W. Hauser, and Wolfgang E. Ernst, 25<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Helsinki, Finland, 20 – 25 August 2017.
- 428 Acetone Non-Adiabatic Rydberg State Dynamics Studied by Femtosecond Photoelectron-Photoion Coincidence Spectroscopy, M. Koch, S. Cesnik, P. Heim, S. Ranftl, B. Thaler, W. E. Ernst, 25<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Helsinki, Finland, 20 – 25 August 2017.
- 429 Rydberg states of alkali atoms on helium droplets: electrons in a Coulomb potential shielded by a superfluid dielectric, Andreas W. Hauser, Johann V. Pototschnig, Florian Lackner, and Wolfgang E. Ernst 25<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Helsinki, Finland, 20 – 25 August 2017.
- 430 In situ studies of high-purity mono- and bimetallic nanostructures in experiment and simulation, D. Knez, M. Schnedlitz, M. Lasserus, G. Kothleitner, A. Hauser, W. Ernst, F. Hofer, Microscopy Conference 2017 (MC 2017), Lausanne, Switzerland, 21 – 25 August 2017.
- 431 Lowest electronic states of alkali (Li, Na, K, Rb) – alkaline-earth (Ca, Sr) diatomic molecules, Johann V. Pototschnig, Ralf Meyer, Andreas W. Hauser, Wolfgang E. Ernst, 11th Triennial Congress of the World Association of Theoretical and Computational Chemists (WATOC 2017), Munich, Germany, 27 August – 1 September 2017.
- 432 Helium droplets as cold traps for the formation of core-shell clusters, Wolfgang E. Ernst, EU COST MOLIM Workshop on Intermolecular Interactions, Santiago de Compostela, Spain, 2 – 4 October 2017 (**invited**).
- 433 Electronic excitation and nuclear motion of atomic dopants in He nanodroplets, Andreas W. Hauser, Martin Schnedlitz, Johann Pototschnig, Ralf Meyer and Wolfgang E. Ernst, EU COST MOLIM Workshop on Intermolecular Interactions, Santiago de Compostela, Spain, 2 – 4 October 2017.
- 434 Plasmonic Properties of Ag@Au core@shell Nanoparticles and Nanostructures Formed by Helium Droplet Synthesis, F. Lackner, A. Schiffmann, M. Schnedlitz, M. Lasserus, R. Messner and W.E. Ernst, H. Fitzek, P. Pölt, D. Knez, and F. Hofer, EU COST (CM1405) workshop “Multiscale Modelling - From Quantum Effects to Material Properties at the Nanoscale”, Graz, Austria, 4 – 7 February 2018.
- 435 Ultrafast Rydberg state dynamics of acetone studied by photoelectron-photoion coincidence spectroscopy: investigation of different relaxation and fragmentation channels, P. Heim, B. Thaler, S. Ranftl, S. Cesnik, L. Treiber, M. Meyer, W. E. Ernst, and M. Koch, EU COST (CM1405) workshop “Multiscale Modelling - From Quantum Effects to Material Properties at the Nanoscale”, Graz, Austria, 4 – 7 February 2018.

- 436 Ultrafast dynamics of photoexcited atoms and molecules inside a superfluid helium environment, B. Thaler, P. Heim, S. Ranftl, S. Cesnik, L. Treiber, M. Meyer, W. E. Ernst and M. Koch, EU COST (CM1405) workshop “Multiscale Modelling - From Quantum Effects to Material Properties at the Nanoscale”, Graz, Austria, 4 – 7 February 2018.
- 437 On the stability of Ag-Au and Ni-Au core-shell particles at elevated temperatures: diffusion, oxidation and structural inversion at atomic resolution M. Schnedlitz, M. Lasserus, R. Meyer, R. Messner, A. Schiffmann, F. Lackner, W.E. Ernst, A.W. Hauser, D. Knez, and F. Hofer, EU COST (CM1405) workshop “Multiscale Modelling - From Quantum Effects to Material Properties at the Nanoscale”, Graz, Austria, 4 – 7 February 2018.
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- 439 Atoms in motion: electron beam induced dynamics of metallic clusters in experiment & simulation, D. Knez, E. Fisslthaler, F. Hofer; M. Schnedlitz, M. Lasserus, A. Schiffmann and W. E. Ernst, EU COST (CM1405) workshop “Multiscale Modelling - From Quantum Effects to Material Properties at the Nanoscale”, Graz, Austria, 4 – 7 February 2018.
- 440 Acetone Non-Adiabatic Rydberg State Dynamics: Relaxation and Fragmentation Studied by Femtosecond Photoelectron-Photoion Coincidence Spectroscopy, P. Heim, B. Thaler, S. Cesnik, S. Ranftl, L. Treiber, M. Meyer, M. Rumetshofer, W. E. Ernst, and M. Koch, Gordon Research Conference on Photoionization and Photodetachment, From Attoseconds to Nanoseconds: The Chemistry and Physics of Electrons, Atoms, Molecules, and Light, Galveston, TX, USA, 18 – 23 February 2018.
- 441 Ultrafast photodynamics of atoms and molecules inside superfluid helium nanodroplets, Bernhard Thaler, Pascal Heim, Stefan Cesnik, Sascha Ranftl, Wolfgang E. Ernst, Markus Koch, Gordon Research Conference on Photoionization and Photodetachment, From Attoseconds to Nanoseconds: The Chemistry and Physics of Electrons, Atoms, Molecules, and Light, Galveston, TX, USA, 18 – 23 February 2018.
- 442 Molecular Collisions in Helium Droplets: From Spatial Hindrance to Controlled Molecular Synthesis, Andreas Hauser, María Pilar De Lara-Castells, Wolfgang E. Ernst, 3<sup>rd</sup> Cold and Controlled Molecules and Ions (CCMI) Conference - The University of Georgia, Athens, USA, 25 – 29 March 2018.
- 443 Core-Shell Nanoparticles Prepared in Superfluid Helium Droplets: Structure and Phase Transitions Studied at Atomic Resolution, Wolfgang E. Ernst, AnalytiX 2018, Miami, FL, USA, 26 – 29 March 2018 (**invited**).
- 444 Spectroscopy of doped helium nanodroplets – solvation dynamics after electronic excitation, Wolfgang E. Ernst, 3<sup>rd</sup> EU COST MOLIM (CM1405) General Meeting, Budapest, Hungary, 19 – 21 April 2018 (**invited**).
- 445 Electron-phonon coupling and charge density wave excitations from surface scattering measurements, Wolfgang E. Ernst, XXIVth International Symposium on the Jahn-Teller Effect, Santander, Spain, 24 – 29 June 2018 (**plenary**).

- 446 Acetone Non-Adiabatic Rydberg State Dynamics: Relaxation and Fragmentation Studied by Femtosecond Photoelectron-Photoion Coincidence Spectroscopy, Pascal Heim, Bernhard Thaler, Stefan Cesnik, Sascha Ranftl, Leonhard Treiber, Miriam Meyer, Michael Rumetshofer, Wolfgang von der Linden, Wolfgang E. Ernst and Markus Koch, Max Ent – 38th International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering – The Alan Turing Institute, British Library, London, UK, 02-06 July, 2018.
- 447 Bayesian analysis of femtosecond pump-probe photoelectron-photoion coincidence spectra, Pascal Heim, Michael Rumetshofer, Sascha Ranftl, Bernhard Thaler, Wolfgang E. Ernst, Markus Koch, and Wolfgang von der Linden, Max Ent – 38th International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering – The Alan Turing Institute, British Library, London, UK, 02-06 July, 2018.
- 448 Ultrafast non-adiabatic relaxation and fragmentation dynamics of high-lying acetone Rydberg states, P. Heim, B. Thaler, S. Cesnik, M. Rumetshofer, S. Ranftl, L. Treiber, M. Meyer, W. von der Linden, W. E. Ernst, and M. Koch, XXIst International Conference on Ultrafast Phenomena, Hamburg, Germany, 15 – 20 July 2018.
- 449 Femtosecond response of a quantum solvent to impurity photoexcitation, B. Thaler, S. Ranftl, P. Heim, S. Cesnik, M. Meyer, L. Treiber, W. E. Ernst, M. Koch, XXIst International Conference on Ultrafast Phenomena, Hamburg, Germany, 15 – 20 July 2018.
- 450 Coherent vibrational wave packet dynamics inside superfluid helium nanodroplets, B. Thaler, P. Heim, S. Ranftl, M. Meyer, L. Treiber, S. Cesnik, W. E. Ernst, and M. Koch, XXIst International Conference on Ultrafast Phenomena, Hamburg, Germany, 15 – 20 July 2018.
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- 452 Surface phonons and charge density wave excitations at topological semimetal and insulator surfaces, Anton Tamtögl, Patrick Kraus, Michael Mayrhofer-Reinhartshuber, Adrian Ruckhofer, Giorgio Benedek, Marco Bernasconi, Daniele Dragoni, Davide Campi, Marco Bianchi, Philip Hofmann, Wolfgang E. Ernst, 34th European Conference On Surface Science, Aarhus, Denmark, 26 – 31 Aug. 2018.
- 453 Electron-phonon coupling and atom-surface interaction of topological insulators from helium atom scattering, Anton Tamtögl, Michael Pusterhofer, Patrick Kraus, Giorgio Benedek, Marco Bianchi, Philip Hofmann, John Ellis, William Allison, Wolfgang E. Ernst, 34<sup>th</sup> European Conference On Surface Science, Aarhus, Denmark, 26 – 31 Aug. 2018.
- 454 Surface phonon dispersion of Bi<sub>2</sub>Se<sub>3</sub>(111): evidence for a prominent surface acoustic wave, Adrian Ruckhofer, Anton Tamtögl, Davide Campi, Michael Pusterhofer, Marco Bianchi, Philip Hofmann, Giorgio Benedek, Wolfgang E. Ernst, 34<sup>th</sup> European Conference On Surface Science, Aarhus, Denmark, 26 – 31 Aug. 2018.

- 455 Functional plasmonic nanostructures obtained from helium droplet synthesis, Florian Lackner, Alexander Schiffmann, Maximilian Lasserus, Roman Messner, Martin Schnedlitz, Harald Fitzek, Peter Pölt, Daniel Knez, Ferdinand Hofer, and Wolfgang E. Ernst, 34<sup>th</sup> European Conference On Surface Science, Aarhus, Denmark, 26 – 31 Aug. 2018.
- 456 Ultra-thin h-BN films employed as STEM substrates for nanoscale plasmon spectroscopy, Alexander Schiffmann, Daniel Knez, Florian Lackner, Maximilian Lasserus, Roman Messner, Martin Schnedlitz, Ferdinand Hofer, and Wolfgang E. Ernst, 34<sup>th</sup> European Conference On Surface Science, Aarhus, Denmark, 26 – 31 Aug. 2018.
- 457 Bayesian Analysis of Femtosecond Pump-Probe Photoelectron-Photoion Coincidence Measurements, P. Heim, M. Rumetshofer, B. Thaler, W.E. Ernst, M. Koch, and W. von der Linden, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 458 Non-Adiabatic Photofragmentation Dynamics of Acetone Molecules Studied by Femtosecond Photoelectron-Photoion Coincidence Spectroscopy, Pascal Heim, Stefan Cesnik, Miriam Meyer, Bernhard Thaler, Wolfgang E. Ernst, and Markus Koch, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 459 Coherent vibrational wave packet motion inside superfluid helium nanodroplets, M. Meyer, B. Thaler, P. Heim, W. Kleinsasser, L. Treiber, W. E. Ernst, and M. Koch, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
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- 461 Plasmon spectroscopy of metallic nanoparticles on ultra-thin h-BN films, Alexander Schiffmann, Daniel Knez, Florian Lackner, Maximilian Lasserus, Roman Messner, Martin Schnedlitz, Ferdinand Hofer, and Wolfgang E. Ernst, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 462 Helium Nanodroplet Based Synthesis of Tailored Nanoparticles for Surface Enhanced Raman Spectroscopy, Florian Lackner, Alexander Schiffmann, Maximilian Lasserus, Roman Messner, Martin Schnedlitz, Harald Fitzek, Peter Pölt, Daniel Knez, Ferdinand Hofer, and Wolfgang E. Ernst, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 463 Surface phonon dispersion of Bi<sub>2</sub>Se<sub>3</sub>(111): Surface Acoustic Waves and Charge Density Wave, Adrian Ruckhofer, Anton Tamtögl, Davide Campi, Michael Pusterhofer, M. Bianchi, P. Hofmann, G. Benedek, W. E. Ernst, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 464 To be or not to be alloyed: The unexpected behavior of Ni-Au and Co-Au core-shell nanoparticles upon heating, M. Schnedlitz, D. Knez, R. Meyer, M. Lasserus, R. Messner, A. Schiffmann, F. Lackner, A. W. Hauser, F. Hofer, and W. E. Ernst, 68<sup>th</sup> Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 465 Thermally induced alloying process in core@shell AgAu particles: A new method to measure diffusion on the nanoscale, Maximilian Lasserus, Martin Schnedlitz, Andreas W. Hauser, Daniel Knez, Roman Messner, Alexander Schiffmann, Florian Lackner,

- Ferdinand Hofer, Wolfgang E. Ernst, 68th Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 466 Corroborating diffusion mechanisms between cryogenic and ambient temperatures, A. Tamtögl, A. Sabik, H. Hedgeland, D. J. Ward, J. Ellis, W. Allison, G. Antczak, and W. E. Ernst, 68th Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 467 Spectroscopy of gold atoms in helium nanodroplets, R. Messner, A. Schiffmann, J. V. Pototschnig, M. Lasserus, M. Schnedlitz, F. Lackner and W. E. Ernst, 68th Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 468 Neural network based embedded atom model potentials for metallic nanoparticles, R. Meyer, W. E. Ernst, and A. W. Hauser, 68th Annual Meeting of the Austrian Physical Society, Graz, Austria, 10 – 13 Sept. 2018.
- 469 Ultrafast photoexcitation dynamics of atoms and molecules inside a quantum solvent, Bernhard Thaler, Pascal Heim, Miriam Meyer, Leonhard Treiber, Wolfgang E. Ernst, Markus Koch, EU COST Workshop: Molecules in Motion, Athens, Greece, 8-10 October 2018.
- 470 Core-shell nanoparticles prepared in superfluid helium droplets: structure, phase transitions, and alloy formation, A. Schiffmann, M. Schnedlitz, M. Lasserus, R. Messner, F. Lackner, R. Meyer, A. W. Hauser, D. Knez, F. Hofer, and W. E. Ernst, Fifth International Conference "Dynamics of Systems on the Nanoscale" (DySoN 2018), Potsdam, Germany, 8 – 12 October 2018 (**invited**).
- 471 Helium Droplet Synthesis as a New Route to Plasmonic Nanoparticles and Nanostructures, Florian Lackner, Alexander Schiffmann, Roman Messner, Maximilian Lasserus, Martin Schnedlitz, Harald Fitzek, Peter Pölt, Daniel Knez, Gerald Kothleitner, and Wolfgang E. Ernst, international workshop on “Dynamics, Interactions and Electronic Transitions at Surfaces (DIET)”, Garmisch-Partenkirchen, Germany, 8 – 12 October 2018.
- 472 Core-Shell Nanoparticles for Plasmonics and Catalysis, Alexander Schiffmann, Martin Schnedlitz, Maximilian Lasserus, Roman Messner, Florian Lackner, Andreas W. Hauser, Daniel Knez, Ferdinand Hofer, and Wolfgang E. Ernst, 4th Global Congress & Expo on Materials Science and Nanoscience, Amsterdam, Netherlands, 15 – 17 October 2018 (**invited keynote lecture**).
- 473 On the Unexpected Alloying Behaviour of Ni-Au and Co-Au Core-Shell Nanoparticles, A.W. Hauser, M. Schnedlitz, M. Lasserus, R. Meyer and W. E. Ernst, D. Knez, F. Hofer, R. Fernandez-Perea, M. Pilar de Lara-Castells, EU COST Workshop: Molecules in Motion WG 3, CSIC Madrid, 03 – 05 December 2018.
- 474 Hot thermal spin-orbit population of  $^2P$  atoms conserved in a cold quantum fluid environment, B. Thaler, R. Meyer, P. Heim, S. Ranftl, J. V. Pototschnig, A. W. Hauser, M. Koch, and W. E. Ernst, 4<sup>th</sup> EU COST MOLIM (CM1405) General Meeting, Bologna, Italy, 27 Feb – 01 March 2019.
- 475 Growth and Morphology of Metal Clusters on HOPG, Christophe Nacci, Alexander Schiffmann, Florian Lackner, Philipp Thaler, Wolfgang E. Ernst, and Leonhard Grill, DPG-Frühjahrstagung, Regensburg, 31. März - 05. April 2019.

- 476 Femtosecond Photoexcitation Dynamics of Atoms and Molecules inside a Quantum Solvent, Bernhard Thaler, Pascal Heim, Leonhard Treiber, Miriam Meyer, Wolfgang E. Ernst, and Markus Koch, 13th European Conference on Atoms, Molecules, and Photons (ECAMP13), Florence, Italy, April 8-12, 2019.
- 477 Rydberg series of alkali atoms on helium droplets: electrons in a Coulomb potential shielded by a superfluid dielectric, Wolfgang E. Ernst, AnalytiX 2019, Singapore, 12 – 14 April 2019 (**invited**).
- 478 Core-Shell Nanoparticles for Plasmonics and Catalysis, Wolfgang E. Ernst, AnalytiX 2019, Singapore, 12 – 14 April 2019 (**invited**).
- 479 Photoinduced formation of RbSr molecules on helium droplets from spatially separated Rb and Sr atoms, F. Lackner and W. E. Ernst, International Conference on Quantum Fluid Clusters – QFC 2019, 696. WE-Heraeus-Seminar, Physikzentrum, Bad Honnef, Germany, 19 May - 22 May 2019.
- 480 Towards new plasmonic materials: Synthesis of K and K-Au nanoparticles with helium nanodroplets, R. Messner, D. Knez, F. Hofer, W.E. Ernst and F. Lackner, International Conference on Quantum Fluid Clusters – QFC 2019, 696. WE-Heraeus-Seminar, Physikzentrum, Bad Honnef, Germany, 19 May - 22 May 2019.
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- 484 Nanomaterials Synthesized in Helium Droplets, A. W. Hauser, F. Lackner, D. Knez, F. Hofer, and W. E. Ernst, Bunsentagung 2019 - 118th General Assembly of the German Bunsen Society, Jena, Germany, 30.05 – 01.06.2019 (Abstract-ID: 8502-20943).
- 485 Femtosecond Photoexcitation Dynamics of Atoms and Dimers inside a Quantum Solvent, P. Heim, B. Thaler, L. Treiber, M. Meyer, W. E. Ernst, and M. Koch, 14th Femtochemistry Conference (FEMTO 14), Shanghai, China, 28.07.2019 - 02.08.2019.
- 486 Hot spin-orbit population of In  $^2P_{3/2}$  in a cold quantum fluid environment, B. Thaler, R. Meyer, P. Heim, S. Ranftl, J. V. Pototschnig, A. W. Hauser, M. Koch, and W. E. Ernst, 26<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 26 – 30 Aug. 2019.

- 487 Photoassociation of RbSr molecules on helium nanodroplets from spatially separated Rb and Sr atoms. F. Lackner and W. E. Ernst, 26<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 26 – 30 Aug. 2019.
- 488 Surface dynamics of topological materials from helium atom scattering experiments, Anton Tamtögl, Adrian Ruckhofer, and Wolfgang E. Ernst, Fourth International Workshop on Scattering of Atoms and Molecules on Surfaces (SAMS-4), Madrid, Spain, 24 – 27 September 2019 (**invited**).
- 489 The Atom-Surface Interaction Potential of Topological Insulators from Helium Atom Scattering, A. Ruckhofer, M. Pusterhofer, M. Bremholm, W. E. Ernst, and A. Tamtögl, Fourth International Workshop on Scattering of Atoms and Molecules on Surfaces (SAMS-4), Madrid, Spain, 24 – 27 September 2019.
- 490 The Range of Dynamics Studied with Atom-Surface Scattering: Verifying Rate Theory Across 14 Orders of Magnitude, A. Tamtögl, A. Sabik, H. Hedgeland, D. J. Ward, A. Ruckhofer, W. Allison, J. Ellis, G. Antczak, P. Fouquet, and W. E. Ernst, Fourth International Workshop on Scattering of Atoms and Molecules on Surfaces (SAMS-4), Madrid, Spain, 24 – 27 September 2019.
- 491 Metals in helium droplets – from atoms to cluster aggregation, Wolfgang E. Ernst, **International Virtual Symposium** in memory of Prof. Evgeny Gordon, September 8 - 9, 2020, online organization by Iouli Gordon, Atomic and Molecular Physics Division Center for Astrophysics, Harvard & Smithsonian, Cambridge, MA, USA (**invited**), <https://conferences.icp.ac.ru/gordon2020/>.
- 492 Attosecond Spectroscopy of Ultrafast Carrier Dynamics in Nanoparticles, F. Lackner, J. Gessner, F. Siegrist, A. Schiffmann, R. Messner, M. Lasserus, M. Schnedlitz, B. Toulson, D. Knez, F. Hofer, O. Gessner, W.E. Ernst, M. Schultze, 22nd International Conference on Ultrafast Phenomena (UP 2020), 16 – 19 November 2020 OSA Virtual Event - Beijing, [https://www.optica.org/en-us/events/meeting\\_archives/2020/the\\_22nd\\_international\\_conference\\_on\\_ultrafast\\_phe/](https://www.optica.org/en-us/events/meeting_archives/2020/the_22nd_international_conference_on_ultrafast_phe/)
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- 494 Ultrafast processes of atoms and molecules inside a quantum fluid, Thaler, B., Heim, P., Meyer, M., Treiber, L., Stadlhofer, M., Ernst, W. E. & Koch, M., 22nd International Conference on Ultrafast Phenomena (UP 2020), 16 – 19 November 2020 OSA Virtual Event - Beijing, [https://www.optica.org/en-us/events/meeting\\_archives/2020/the\\_22nd\\_international\\_conference\\_on\\_ultrafast\\_phe/](https://www.optica.org/en-us/events/meeting_archives/2020/the_22nd_international_conference_on_ultrafast_phe/)
- 495 Phase segregation in NiAu-nanoalloys induced by swift electrons, Daniel Knez, Martin Schnedlitz, Maximilian Lasserus, Andreas W. Hauser, Wolfgang E. Ernst, Ferdinand Hofer, Gerald Kothleitner, Virtual Early Career European Microscopy Congress 2020, 24 – 26 November 2020 | Online, <file:///C:/Users/wee/Downloads/VECR-EMC2020-Booklet-FINAL.pdf>

- 496 Core-shell clusters synthesized in helium droplets - structure, phase transitions, and optical resonances, Wolfgang E. Ernst, Third International Meeting on Nanoalloys (IMN 2021), virtual conference held by KU Leuven, Belgium, 14 – 16 April 2021 (**invited**), <https://nanoalloys-irn.cnrs.fr/immn-2021/> .
- 497 Ultrafast Nonadiabatic Dynamics of Nearly Degenerated Rydberg States in Acetone, Pascal Heim, Sebastian Mai, Bernhard Thaler, Stefan Cesnik, Davide Avagliano, Dimitra Bella-Velidou, Wolfgang E. Ernst, Leticia González, Markus Koch, International Conference on Photochemistry 2021 (Online Conference ICP 2021), Geneva, Switzerland, 19-23 July 2021, <https://scg.ch/component/eventbooking/international-conference-on-photochemistry-2021-icp-2021> .
- 498 Rhodamine B covered Au nanoparticles separated by an intermediate spacing layer in helium nanodroplets, Roman Messner, Wolfgang E. Ernst, and Florian Lackner, Cluster Meeting, J. Heyrovský Institute, Prague, Czech Republic, 18-23 July 2021, <https://clustermeeting2021.eu/> .
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