

Humboldt and Bessel Research Awards

The Alexander von Humboldt Foundation grants up to 100 Humboldt Research Awards annually. These awards are given to researchers from abroad in recognition of work that has had a significant impact on their own discipline. They were established to promote academic cooperation between German scientists and researchers from abroad, and allow scientists to spend up to one year cooperating on a long-term research project at a host institution in Germany. The Foundation also grants up to 25 Friedrich Wilhelm Bessel Research Awards, which are given to researchers who completed their doctorates less than 18 years ago to allow them to spend up to one year collaborating on a research project at a German institution. We feature some of this year's awardees in chemistry here (Table 1).

Thomas Baumgartner studied at the University of Bonn, where he received his PhD in 1998 for work supervised by Edgar Niecke. From 1998–

1999, he was a research associate at the same institution, and from 1999–2002, he was a postdoctoral fellow with Ian Manners at the University of Toronto. From 2002–2006, he carried out his habilitation with Jun Okuda at the University of Mainz and the RWTH Aachen, and in 2006, he joined the University of Calgary, where he is currently professor. Baumgartner's research interests are in materials chemistry, phosphoorganic chemistry, and organometallic chemistry. He has reported in *Angewandte Chemie* on bioinspired phosphole-lipids,^[2a] and in *Chemistry—A European Journal* on highly emissive dithiazolephospholes.^[2b]

Hendrik Bluhm studied at the University of Leipzig, and worked with Roland Wiesendanger at the University of Hamburg for his PhD, which was awarded in 1996. From 1996–2000, he was a postdoctoral fellow with Miquel B. Salmeron at the Lawrence Berkeley National Laboratory, and from 2001–2004, he was a staff scientist at the Fritz Haber Institute (FHI) of the Max Planck Society. He returned to the Lawrence Berkeley National Laboratory in 2004, and is currently senior scientist. Bluhm's research is focused on the investigation of solid–gas, solid–liquid, and liquid–gas interfaces by using in situ soft X-ray spectroscopic methods. He has reported in *Angewandte Chemie* on gold nanoparticles supported on titania,^[3a] and in *ChemPhys-Chem* on band bending on metal-oxide surfaces.^[3b]

Shū Kobayashi studied at the University of Tokyo, where he worked with Teruaki Mukaiyama for his PhD (awarded in 1988). He started his independent career at the Science University of Tokyo in 1987, and moved to the University of Tokyo (where he is currently Professor of Organic Chemistry) in 1998. Kobayashi's research program includes the development of new synthetic methods and novel catalysts, organic reactions in water, solid-phase and flow synthesis, total synthesis of biologically interesting compounds, and organometallic chemistry. He has reported in *Advanced Synthesis & Catalysis* on the applications of tunable calcium catalysts,^[4a] and in *Angewandte Chemie* on asymmetric carbon–carbon bond formation under continuous-flow conditions.^[4b] Kobayashi is on the editorial or advisory board of *Advanced Synthesis & Catalysis*, the *Asian Journal of Organic Chemistry*, and *Chemistry—An Asian Journal*.

Thomas Loerting studied at the University of Innsbruck, and carried out his PhD (awarded in 2000) with Klaus R. Liedl. After postdoctoral work at the same institution with the late Erwin Mayer (2001), and at the Massachusetts Institute of Technology with Mario J. Molina (2001–2003), he joined the faculty of the University of Innsbruck and completed his habilitation in 2008. Themes of Loerting's research include soft condensed matter, polyamorphism, phase transitions, and environmental chemistry. His report on the spectroscopic

Table 1: 2013 Humboldt and Bessel Award winners in chemistry.

Awardee	Host
Thomas Baumgartner (University of Calgary)	Rik R. Tykwinski (Universität Erlangen-Nürnberg)
Hendrik Bluhm (Lawrence Berkeley National Laboratory)	Hans-Joachim Freund (FHI of the Max Planck Society)
Herman S. Overkleeft (Leiden University)	Roderich Süßmuth (Technische Universität Berlin)
Shu Kobayashi (University of Tokyo)	Benjamin List (MPI for Coal Research)
	Thorsten Bach (Technische Universität München)
Joseph O. Lalah (Kenya University Polytechnic College)	Karl-Werner Schramm (Helmholtz Zentrum München)
Thomas Loerting (University of Innsbruck)	Roland Böhmer (Technische Universität Dortmund)
Nazario Martín (Universidad Complutense de Madrid)	Rik R. Tykwinski (Universität Erlangen-Nürnberg)
Martin Reinhard (Stanford University)	Martin Jekel (Technische Universität Berlin)
John Tully (Yale University)	Alec M. Wodtke (University of Göttingen and Max Planck Institute for Biophysical Chemistry)
Michael R. Wasielewski ^[1] (Northwestern University)	Frank Würthner (University of Würzburg)
Zhiyuan Zhong (Soochow University)	Rainer Haag (Freie Universität Berlin)
	Andreas Lendlein (Helmholtz Zentrum Geesthacht)

Awarded ...



T. Baumgartner



H. Bluhm



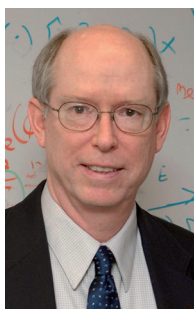
S. Kobayashi



T. Loerting



N. Martín



J. C. Tully



Z. Zhong

observation of matrix-isolated carbon dioxide was featured on a cover of *Angewandte Chemie*,^[5a] and he has also reported in *ChemPhysChem* on the formation of bulk carbonic acid in the atmosphere.^[5b]

Nazario Martín was featured here when he was awarded an EUChE MS Lectureship.^[6a] His most recent contributions to *Angewandte Chemie* are reports on self-ordering donor-acceptor nanohybrids,^[6b] and on enantioselective phosphine-catalyzed cycloaddition reactions with C_{60} .^[6c] Martín is on the International Advisory Boards of *ChemPlusChem* and *ChemSusChem*.

John C. Tully studied at Yale University, and was awarded his PhD in 1968 for work supervised by R. Stephen Berry at the University of Chicago. From 1968–1970, he carried out postdoctoral research with Richard Wolfgang at the University of Colorado and Yale University, and in 1970, he joined Bell Laboratories, Murray Hill, New Jersey. He joined the faculty at Yale University in 1996, and is currently Sterling Professor of Chemistry, and Professor of Physics and Applied Physics. Tully's research involves the development and application of theoretical methods in order to understand dynamic processes at the molecular level. He has reported in *Angewandte Chemie* on attrition enhanced deracemization,^[7a] and on the vibrational excitation of NO molecules on a gold surface.^[7b]

Zhiyuan Zhong studied at Jilin University of Technology and the Changchun Institute of Applied Chemistry of the Chinese Academy of Sciences, and worked with Jan Feijen at the University of Twente for his PhD (awarded in 2002). He was subsequently appointed assistant professor at the same institution and moved to Soochow University (China) in 2007. He is currently Chair of the Biomedical Polymers Laboratory at Soochow University and Co-Chair of the Jiangsu Key Laboratory of Advanced Functional Polymer Design and Application. Zhong's research is focused on the development of novel biomedical

materials, controlled drug and protein release systems, and multifunctional gene delivery systems. He has reported in *Angewandte Chemie* on dextran nanoparticles for drug delivery.^[8]

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