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**Date of birth:** November 02, 1961



### UNIVERSITY EDUCATION

1988-1990 Dr. rer. nat., RWTH Aachen with Prof. Dr. P. Paetzold  
*Reaktionen von Iminoboranen mit Carbenkomplexen des Tantal*  
1983-1988 Undergraduate Studies in Chemistry, RWTH Aachen

### EMPLOYMENT

2010 Chair offered at the University of Erlangen (declined)  
2009-current Professor (chair, W3), Inorganic Chemistry, Univ. Würzburg  
2005-2009 Dean/Vice Dean of the Faculty for Chemistry and Pharmacy  
2002-2009 Professor (chair, C4) of Inorganic Chemistry Univ. Würzburg  
2002 Appointed Reader at Imperial College, London  
2000 Appointed Senior Lecturer at Imperial College, London  
1998 Appointed Privatdozent at the RWTH Aachen  
1997 Habilitation, RWTH Aachen with Prof. Dr. P. Paetzold  
1991-1992 Postdoc with Prof. M. F. Lappert, University of Sussex, UK

### MAJOR FELLOWSHIPS, HONORS, AWARDS AND DISTINCTIONS

Academy	since 2015	North Rhine-Westphalian Acad. of Sciences, Humanities and the Arts
Memberships:	since 2011	Leopoldina - German National Academy of Science
	since 2009	Bavarian Academy of Science
	since 2002	Fellow of the Royal Society of Chemistry
Board	2017-current	Member of the Editorial Board (Kuratorium) <i>Angewandte Chemie</i>
Memberships:	2017-current	Member of the Editorial Advisory Board <i>Eur. J. Inorg. Chem.</i>
	2017-current	Member of the Editorial Advisory Board <i>Organometallics</i>
	2014-current	Member of Advisory Board, Leibniz Institute for Catalysis, Rostock
	2012-current	Member of Advisory Board, <i>Dalton Transactions</i>
	2008-2016	Member of DFG panel for Inorganic Molecular Chemistry
	2007-2010	Member of the <i>Wöhler Vereinigung für Anorganische Chemie</i>
	2006-2009	Member of Advisory Board, <i>Organometallics</i>
	2005-current	Member of Advisory Board, IMEBORON conferences
	2004-current	Member of Advisory Board, EUROBORON conferences
Selected Major Awards:	2017	<i>Glenn Seaborg Lecture</i> , University of California Berkeley
	2016	<i>Alfred Stock Memorial Prize</i> of the GDCh
	2016	<i>Frontiers Visiting Lectureship</i> , Texas A&M University
	2015	<i>ERC Advanced Grant MULTIBB</i> (2.5M€)
	2014	<i>RSC Main Group Award</i> , Royal Society of Chemistry
	2014	<i>ScotChem Lectureship</i> of the five Scottish universities
	2014	<i>Bruker Lecture</i> , University of Toronto
	2012	<i>Steinhofer Lecture</i> , Universität Freiburg
	2011	<i>ERC Advanced Grant BORYLENEFUN</i> (2.5M€)
2009	<i>Gottfried Wilhelm Leibniz Prize</i> of the DFG (2.5M€)	
2009	<i>Arduengo Lecture</i> , University of Alabama	

## **PUBLICATIONS SUMMARY**

Publications: over 440. Over 140 papers in journals with impact factors >10. Over 200 in first ranking journals including *Science* (2), *Nature* (1), *Nature Chemistry* (5), *Nature Communications* (1), *Angewandte Chemie* (101), *J. Am. Chem. Soc.* (28). Submitted patents: 4. Book chapters: 3. H-index: 54. Citations >10,900

## **FUNDING HISTORY - Major Grants Only (>50,000 €)**

### **1. Other major grants**

German Science Council Research Building, <i>Institute for Sustainable Chemistry &amp; Catalysis with Boron</i> , co-speakers Profs Holger Braunschweig, Todd B. Marder, Maik Finze	19,400,000 €
DFG Leibniz Prize (2009-2015)	3,000,000 €
ERC Advanced Grant (2011-2016)	2,497,000 €
ERC Advanced Grant (2016-2021)	2,500,000 €

### **2. Equipment Grants awarded by the Deutsche Forschungsgemeinschaft (DFG)**

DFG HBF 133-595 (2004) <i>NMR Spectrometer</i>	85,000 €
DFG HBF 133-596 (2004) <i>NMR Spectrometer</i>	89,500 €
DFG HBF 133-597 (2004) <i>NMR Spectrometer</i>	285,000 €
DFG HBF 133-594 (2004) <i>X-ray Diffractometer</i>	190,500 €
DFG INST 93/752-1 (2012) <i>X-ray Diffractometer</i>	195,000 €
DFG INST 93/750-1 (2012) <i>EPR Spectrometer</i>	389,725 €
DFG INST 93/808-1 (2013) <i>N<sub>2</sub>-Cryo-Platform Prodigy</i>	206,000 €
DFG INST 93/770-1 (2012) <i>WAP-Cluster</i>	146,000 €

### **3. Self-responsive Mode Grants awarded by the Deutsche Forschungsgemeinschaft (DFG)**

DFG BR1149/3-1,2 (1996-1999) <i>Boryl complexes</i>	254,329 €
DFG BR1149/5-1,2 (2004-2010) <i>Synthesis, structure and reactivity of borylene complexes</i>	402,589 €
DFG BR1149/7-1,2 (2005-2011) <i>Synthesis, structure and reactivity of boron-bridged metallocenophanes and related compounds</i>	360,141 €
DFG BR1149/8-1,2,3 (2006-2013) <i>Boryl- and borylene complexes of palladium and platinum</i>	323,922 €
DFG BR1149/11-1 (2010-2013) <i>Reactivity of non-coordinated boroles</i>	113,993 €
DFG BR1149/12-1,2 (2011-2017) <i>Dative interactions between main group and transition metal elements</i>	ca. 570,400 €
DFG BR1149/13-1 (2013-2016) <i>Reduction of monoboranes and diboranes(4)</i>	230,400 €
DFG BR1149/14-1,2 (2013-2019) <i>Metal-mediated cyclisation of iminoboranes: a route to borazarenes and BN-isostere materials</i>	ca. 566,200 €
DFG BR1149/15-1 (2013-2016) <i>Transition-metal-catalysed dehydrocoupling of boranes</i>	118,400 €
DFG BR1149/16-1 (2015-2018) <i>Photophysical Engineering of Transition Metal <math>\pi</math>-Diborene and -Diboryne Complexes</i>	187,300 €
DFG BR1149/19-1 (2016-2019) <i>Electron-Rich Monovalent Boron: A Platform for Metal Mimicry</i>	TBA €

### **4. Grants awarded by the Engineering and Physical Science Research Council (EPSRC, UK)**

EPSRC GR/R36794 (2001-2004) <i>[1]Borametallophenanes of Ti, Zr and Hf</i>	96,316 €
EPSRC GR/R39832 (2001-2004) <i>Transition metal borylene complexes</i>	308,083 €
EPSRC GR/R80438 (2002-2006) <i>Strained [1]borametallophenanes and related compounds; synthesis, reactivity and polymerisation</i>	300,126 €
EPSRC GR/R91977 (2002-2005) <i>Boron-bridged constrained geometry complexes of group III and IV metals</i>	143,430 €

### **5. Grants awarded by the DFG within collaborative projects**

DFG SPP (Priority Program) BR1149/6-1, -2 and -3 <i>Experimental charge density as the key to understand chemical interactions</i> (2005-2011)	250,855 €
DFG GRK (Graduate Research School) 1221 <i>Tuning the electronic properties of aggregates build</i>	

from  $\pi$ -conjugated systems (2006-2015); herein:

– (2006-2010) *Main group element mediated electronic interactions in transition metal  $\pi$ -complexes Phase I* 181,750 €

DFG GRK (Graduate Research School) 2112 *Molecular Biradicals* (2015-2019); herein:

– (2015-2019) *Electronic Structure and Reactivity of Diborenes and Diborenedications* 218,500 €

## 6. Research grants from industry sources

BASF AG (2007-2008) *Borate-based ionic liquids* 75,000 €

Novaled 65,100 €

## 7. Material costs supplements from fellowships and scholarships

Alexander von Humboldt Foundation (materials costs from 11 fellowships) 186,400 €

## TEN REPRESENTATIVE RECENT PUBLICATIONS

1. H. Braunschweig, R. D. Dewhurst, F. Hupp, M. Nutz, K. Radacki, C. W. Tate, A. Vargas, Q. Ye, Multiple Complexation of CO and Related Ligands to a Main Group Element, *Nature* **2015**, 522, 327–330.  
(Highlighted in: *Nature, Chemical and Engineering News*)
2. H. Braunschweig, R. D. Dewhurst, K. Hammond, J. Mies, K. Radacki, A. Vargas, Ambient-Temperature Isolation of a Compound with a Boron-Boron Triple Bond, *Science* **2012**, 336, 1420  
<http://dx.doi.org/10.1126/science.1221138>  
(Highlighted in: *The Times of London, New Scientist, Science, Nature, Chemistry World, Spektrum*)
3. H. Braunschweig, K. Radacki, A. Schneider, Oxoboryl Complexes: Boron–Oxygen Triple Bonds stabilized in the Coordination Sphere of Platinum, *Science* **2010**, 328, 345 <http://dx.doi.org/10.1126/science.1186028>  
(Highlighted in: *Chemical and Engineering News, Angewandte Chemie*)
4. M. Arrowsmith, H. Braunschweig, M. A. Celik, T. Dellermann, R. D. Dewhurst, W. C. Ewing, K. Hammond, T. Kramer, I. Krummenacher, J. Mies, K. Radacki, J. K. Schuster, Neutral Low-Valent s-Block Complexes with Strong Multiple Bonding, *Nature Chemistry* **2016**, 8, 890  
<http://dx.doi.org/10.1038/nchem.2542>  
(Highlighted in: *Chemistry World, Der Spiegel*)
5. H. Braunschweig, T. Dellermann, R. D. Dewhurst, W. C. Ewing, K. Hammond, J. O. C. Jimenez-Halla, T. Kramer, I. Krummenacher, J. Mies, A. K. Phukan, A. Vargas, Metal-Free Coupling of Carbon Monoxide at a Boron-Boron Triple Bond, *Nature Chemistry* **2013**, 5, 1025 <http://dx.doi.org/10.1038/NCHEM.1778>  
(Highlighted in: *Nature*)
6. H. Braunschweig, A. Damme, R. D. Dewhurst, A. Vargas, Bond-strengthening  $\pi$  backdonation in a transition-metal  $\pi$ -diborene complex, *Nature Chemistry* **2013**, 5, 115  
<http://dx.doi.org/10.1038/NCHEM.1520>  
(Highlighted in: *Nature Chemistry*)
7. H. Braunschweig, Q. Ye, A. Vargas, R. D. Dewhurst, K. Radacki, A. Damme, Controlled Homocatenation of Boron on a Transition Metal, *Nature Chemistry* **2012**, 4, 563 <http://dx.doi.org/10.1038/NCHEM.1379>  
(Highlighted in: *Nature Chemistry*)
8. H. Braunschweig, P. Brenner, R. D. Dewhurst, I. Krummenacher, B. Pfaffinger, A. Vargas, Unsupported Boron-Carbon  $\sigma$ -Coordination to Platinum - An Isolable Snapshot of  $\sigma$ -Bond Activation, *Nature Communications* **2012**, 3, 872
9. H. Braunschweig, R. D. Dewhurst, K. Kraft, S. Östreicher, K. Radacki, Planar Four-Coordinate Boron: A Single, Flat Boron Atom as a Ligand for Four Metals, *Angew. Chem. Int. Ed.* **2012**, 51, 2183  
(Highlighted in: *Nature Chemistry*)
10. H. Braunschweig, R. D. Dewhurst, C. Hörl, A. K. Phukan, F. Pinzner, S. Ullrich, Direct Hydroboration of B=B Double Bonds: a Mild and Diastereoselective Strategy for the Proliferation of B–B Single Bonds, *Angew. Chem. Int. Ed.* **2014**, 53, 3241  
(Designated Hot Paper by *Angewandte Chemie*)

## GRANTED PATENTS

1. H. Braunschweig, F. Güthlein, *Transition-metal catalyzed synthesis of diboranes(4)*, EP2554547 (A1), 2013.
2. H. Braunschweig, C. von Kobinski, M. O. Kristen, *Metallocene Complexes*, EP1140955 (A1), 2001.

## **SELECTED NOTABLE INVITED PRESENTATIONS**

2017	<i>Glenn Seaborg Lecture</i> , University of California Berkeley, USA	<b>Named Lectureship</b>
2016	<i>Frontiers Lecture Series</i> , Texas A&M	Lecture Series
	<i>Boron in the Americas XV</i> , Kingston, Canada	<b>Keynote Lecture</b>
	<i>Inorganic Lecture Series MIT and Harvard</i> , Boston, USA	Lecture Series
	<i>Computational Chemistry (CC) Symposium</i> , Athens, Greece	Invited Lecture
2015	<i>Inorganic Lecture Series UBC and UVic</i> , Vancouver/Victoria	Lecture Series
	<i>6<sup>th</sup> Global Congress of Catalysis</i> , Xi'an, China	<b>Keynote Lecture</b>
	<i>14<sup>th</sup> Inorganic Ring Systems (IRIS) Conference</i> , Regensburg	<b>Keynote Lecture</b>
	<i>RSC Main Group Award lecture tour</i> (five UK universities)	<b>Award Lecture Tour</b>
	<i>Plenary talk at SFB symposium</i> , Universität Münster	<b>Plenary Lecture</b>
	<i>Mike Lappert Memorial Symposium</i> , London	<b>Keynote Lecture</b>
2014	<i>Bruker Lectureship</i> , University of Toronto, Canada	<b>Named Lectureship</b>
	<i>ScotChem Lecture Tour</i> , (lectures at the five Scottish universities)	<b>Award Lecture Tour</b>
	<i>Pre-ICOMC Symposium</i> , Kyoto University, Japan	Invited Lecture
	<i>XXVII ICOMC</i> , Sapporo, Japan	<b>Plenary Lecture</b>
	<i>ICCC 41</i> , Singapore	<b>Keynote Lecture</b>
	<i>IMEBoron XV</i> , Prague, Czech Republic	Invited Lecture
	<i>ATC-Diskussionstagung of DECHEMA</i> , Frankfurt, Germany	<b>Keynote Lecture</b>
	<i>Symposium in Honor of Guy Bertrand, ACS Meeting</i> , Dallas	Invited Lecture
	<i>5<sup>th</sup> Global Congress of Catalysis</i> , Qingdao, China	Invited Lecture
2013	<i>ChemComm/Dalton Symposium</i> , Regensburg, Germany	<b>Plenary Lecture</b>
	<i>ACS Meeting</i> , New Orleans, United States	Invited Lecture
	<i>96<sup>th</sup> Canadian Society for Chemistry Conference</i> , Quebec	<b>Keynote Lecture</b>
	<i>INEOS RAS, A. N. Nesmeyanov Institute</i> , Moscow, Russia	<b>Plenary Lecture</b>
2012	<i>Organometallic Summer School</i> , Jaca, Spain	<b>Keynote Lecture</b>
	<i>Steinhofer Lectureship</i> , Uni. Freiburg	<b>Award Lecture</b>
	<i>13<sup>th</sup> Inorganic Ring Systems (IRIS) Conference</i> , Victoria, Canada	<b>Plenary Lecture</b>
	<i>16. Mesilla Chemistry Workshop</i> , New Mexico, United States	Invited Lecture
2011	<i>XIX European Conference on Organomet. Chem.</i> , Toulouse	<b>Plenary Lecture</b>
	<i>ACS Meeting</i> , Denver, United States	Invited Lecture
	<i>IMEBoron XIV</i> , Niagara Falls, Canada	<b>Plenary Lecture</b>
2010	<i>Main Group Interest Group</i> , Oxford, U.K.	<b>Plenary Lecture</b>
	<i>Pacificchem</i> , Honolulu, United States (1 of 2)	Invited Lecture
	<i>Pacificchem</i> , Honolulu, United States (2 of 2)	Invited Lecture
	<i>25<sup>th</sup> OKV</i> , Tromsø, Norway	<b>Keynote Lecture</b>
2009	<i>92<sup>nd</sup> Canadian Society for Chemistry Conference</i> , Hamilton, Canada	<b>Keynote Lecture</b>
	<i>Zing Organometallics Conference</i> , Antigua	<b>Keynote Lecture</b>
	<i>Arduengo Lectureship</i> , University of Alabama	<b>Award Lecture</b>
2008	<i>IMEBoron XIII</i> , Barcelona, Spain	<b>Keynote Lecture</b>
	<i>Anglo-German Inorganic Chemistry Conference VII</i> , Cardiff	<b>Keynote Lecture</b>
2007	<i>EUROBORON IV</i> , Bremen, Germany	<b>Keynote Lecture</b>
2006	<i>ACS Meeting</i> , San Francisco, United States	Invited Lecture
	<i>Minerva Meeting</i> , Rehovot, Israel	<b>Keynote Lecture</b>
2005	<i>IMEBoron XII</i> , Sendai, Japan	<b>Keynote Lecture</b>

## **ORGANISATION OF INTERNATIONAL CONFERENCES**

2014	<i>IMEBORON XV</i> , Prague, Czech Republic (steering committee)
2013	<i>EUROBORON VI</i> , Radziejowice, Poland (steering committee)
2011	<i>IMEBORON XIV</i> , Niagara Falls, Canada (steering committee)
2010	<i>EUROBORON V</i> , Edinburgh, UK (steering committee)
2008	<i>IMEBORON XIII</i> , Barcelona, Spain (steering committee)
2008	<i>AGICHEM VII</i> , Cardiff, UK (steering committee)
2007	<i>EUROBORON IV</i> , Bremen, Germany (steering committee)
2004	<i>2<sup>nd</sup> International Ferrocene Symposium</i> , Würzburg, Germany (symposium chairman)

## **MAJOR CONTRIBUTIONS TO THE EARLY CAREERS OF RESEARCHERS**

1. Habilitation host (2004-2008) to Prof. Dr. David Scheschkewitz, now Krupp Professor (W3) at Universität des Saarlandes, Germany.
2. Habilitation host (2011-2016) to Dr. Viktoria Däschlein-Gessner, now Professor (W3) at Ruhr-Universität Bochum, Germany.
3. Postdoctoral host (2008 and 2010) to Dr. Sundargopal Ghosh, now Professor at the Indian Institute of Technology Madras, India.
4. Postdoctoral host (2008-2010) to Prof. Ching-Wen Chiu, now Assistant Professor at the National Taiwan University.
5. Postdoctoral host (2011-2013) to Dr. Alfredo Vargas, now Senior Lecturer at the University of Sussex, UK.
6. Postdoctoral host (2011-2012) to Asst. Prof. J. Oscar C. Jimenez-Halla, now Assistant Professor at the University of Guanajuato, Mexico.
7. Postdoctoral host (2011-2013) to Dr. Sakya S. Sen, now Research Group Leader at the National Chemical Laboratory in Pune, India.
8. Postdoctoral host (2011-2015) to Dr. Rong Shang, now Assistant Professor at Hiroshima University, Japan.
9. Postdoctoral host (2013) to Dr. Ashwini Phukan, now Professor at Tezpur University, India.
10. Postdoctoral host (2014-2016) to Dr. Xiaoyu Yan, now Assistant Professor at Renmin University, China.
11. Postdoctoral host (2012-2016) to Dr. K. Geetharani, now Assistant Professor at the Indian Institute of Science Bangalore, India.

## **FELLOWSHIPS AND SCHOLARSHIPS AWARDED FOR WORK IN THE GROUP**

### *Alexander von Humboldt Fellowships for Senior Researchers:*

Prof. Sundargopal Ghosh (2008, 2010, 2014)                      Prof. Krishna Kumar Pandey (2010)

### *Alexander von Humboldt Postdoctoral and Return Fellowships:*

Dr. Daniela Rais (2004-2005)	Dr. Rian Dewhurst (2007-2008)
Dr. Ching-Wen Chiu (2009-2010)	Dr. Viktoria Däschlein-Gessner (2010)
Dr. Marta Lopez de Rego Lage (2011-2012)	Dr. Sakya S. Sen (2011-2013)
Dr. Kalimuthu Geetharani (2012-2014)	Dr. Silvia Mozo de la Vieja (2013-2015)
Dr. Xiaoyu Yan (2014-2016)	Dr. Merle Arrowsmith (2014-2016)
Dr. Rixin Wang (2015-2017)	Dr. Chang-Jiang Yao (2015-2017)
Dr. Crispin Lichtenberg (2015-2016)	Dr. Xiaoning Guo (2016-2018)
Dr. Guillaume Bélanger-Chabot (2016-2018)	Dr. Conor Pranckevicius (2017-2019)

### *Fonds der Chemischen Industrie Ph.D. scholarships:*

Dr. Frank Breitling (2002-2004)	Dr. Thomas Kupfer (2005-2007)
Dr. Achim Schneider (2007-2009)	Dr. Jürgen Bauer (2010-2012)
Dr. Johannes Wahler (2011-2013)	Dr. Johannes Brand (2012-2014)
Dr. Lisa Mailänder (2013-2015)	Alexander Hermann (2016-2018)