

Burkhard König

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Curriculum Vitae

Personal data

Date of Birth 23/6/1963
Nationality German
marital status married, one child



Education

University education in Chemistry

6/96 *venia legendi*, Habilitation (organic chemistry), Technical University of Braunschweig, Germany
9/91 Ph.D. (Dr. rer. nat) (summa cum laude), University of Hamburg, Germany
9/88 M.S. (Hauptdiplom) (magna cum laude, 1.0), University of Hamburg, Germany
11/85 B.S. (Vordiplom) (magna cum laude, 1.3), University of Hamburg, Germany

Experience

10/99 - present Full professor at the Department of Chemistry, University of Regensburg, Germany. Research areas: Physical-organic chemistry; supramolecular chemistry, photocatalysis, catalytic conversion of renewable resources.
6/93 – 9/99 Research group leader at the Department of Chemistry, Technical University of Braunschweig, Germany.
1/92 - 5/93 Postdoctoral fellow with Prof. Dr. B. M. Trost at Stanford University, U.S.A.
10/91 - 1/92 Visiting research fellow with Prof. Dr. M. A. Bennett at the Research School of Chemistry, Australian National University, Canberra, Australia
3/88 - 9/91 Graduate research with Prof. Dr. A. de Meijere at the University of Hamburg

Awards and activities

Editorial board member of "Chemistry – A European Journal" and "European Journal of Organic Chemistry (since 2014)"
UN-Decade Award on Sustainability 2011/2012
Dean of the faculty of chemistry since 10/2011
Literature award of the Fonds of the German Chemical Industry 2007
Chairman of the Liebig Vereinigung (National organic division; 2008 – 2012)
Member of the executive board of the German Chemical Society (2004 - 2007)

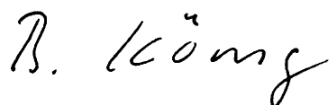
Chairman of the „Arbeitsgemeinschaft Deutscher
Universitätsprofessoren Chemie (ADUC)“ (2005-2007)
Member of the International Advisory Board of the Institute for
Organic Chemistry and Biochemistry of the Czech Academy of
Sciences, Prag (since 2004)
Member of the International Advisory Board of the “European
Journal of Organic Chemistry” (since 2004)
Invitation fellowship award of the `Japan Society for the Promotion
of Science` (1996)
Award of the Dr. Otto Röhm Gedächtnisstiftung (1995)
Fellowship of the Deutsche Forschungsgemeinschaft
(Habilitationstipendium)
Fellowship of the Fonds der Chemischen Industrie (Liebig-
Stipendium)
Postdoctoral fellow of the Alexander von Humboldt foundation
(Feodor-Lynen fellow)
Graduate fellow of the Studienstiftung des Deutschen Volkes

Publication record

Scientific papers and reviews: 314 / H-index 45
books, book reviews, science related articles: 60

Regensburg

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For additional information, please visit: <http://www-oc.chemie.uni-regensburg.de/koenig/index.html>

Ten self selected papers

1. *Eosin Y Catalyzed Visible Light Oxidative C-C and C-P bond Formation* (**Times Cited: 238**)
D. P. Hari, B. Koenig* *Org. Lett.* **2011**, *13*, 3852 – 3855. DOI: [10.1021/ol201376v](https://doi.org/10.1021/ol201376v)
The paper disclosed the first example of using the organic dye eosin Y as visible light photocatalyst; the compound is now widely used by researchers to replace precious Ru(bipy)₃Cl₂ in synthesis.
2. *Metal free, Visible Light Mediated Direct C-H Arylation of Heteroarenes with Aryl Diazonium salts* (**Times Cited: 200**)
D. P. Hari, P. Schroll, B. König* *J. Am. Chem. Soc.* **2012**, *134*, 2958 – 2961. DOI: [10.1021/ja212099r](https://doi.org/10.1021/ja212099r)
The Meerwein arylation reaction is known since more than 100 years, but the original protocol using copper salts gives only moderate yields. This has limited the use of the reaction in synthesis. We describe here for the first time the activation of diazonium salts by visible light photoredox catalysis providing a much cleaner reaction and good to excellent product yields. The “Photo Meerwein” reaction has since then been widely applied in organic synthesis.
3. *The Photocatalyzed Meerwein Arylation: Classic Reaction of Aryl Diazonium Salts in a New Light* (**Times cited: 204**)
D. P. Hari, B. König* *Angew. Chem. Int. Ed.* **2013**, *52*, 4734 – 4743. DOI: [10.1002/anie.201210276](https://doi.org/10.1002/anie.201210276)
We have summarized the rapid expanding synthetic applications of our „Photo Meerwein“ arylation reaction in this review.
4. *Visible Light Photocatalytic Synthesis of Benzothiophenes* (**Times Cited: 85**)
D. P. Hari, T. Hering, B. König* *Org. Lett.* **2012**, *14*, 5334 – 5337. DOI: [10.1021/ol302517n](https://doi.org/10.1021/ol302517n)
Application of the „Photo Meerwein“ reaction in the synthesis of important heterocycles.
5. *Visible light Promoted Stereoselective Alkylation by Combining Heterogeneous Photocatalysis with Organocatalysis* (**Times Cited: 85**)
M. Cherevatskaya, M. Neumann, S. Fuldner, C. Harlander, S. Kümmel, S. Dankesreiter, A. Pfitzner, K. Zeitler, B. König* *Angew. Chem. Int. Ed.* **2012**, *51*, 4062 – 4066. DOI: [10.1002/anie.201108721](https://doi.org/10.1002/anie.201108721)
This is the first report combining stereoselective organocatalysis with heterogeneous semiconductor photocatalysis replacing homogeneous photocatalysts, like Ru or Ir complexes by robust and available semiconductors.
6. *Reduction of aryl halides by consecutive visible light-induced electron transfer processes* (**Times Cited: 33**)
I. Ghosh, T. Ghosh, J. I. Bardagi, B. König* *Science* **2014**, *346*, 725-728.
This is the first report on consecutive photoinduced electron transfer in visible light photocatalysis.
7. *Molecular Imprinting of Luminescent Vesicles* (**Times Cited: 21**)
S. Banerjee, B. König* *J. Am. Chem. Soc.* **2013**, *135*, 2967 – 2970. DOI: [10.1021/ja4001568](https://doi.org/10.1021/ja4001568)
First report of molecular imprinting on the surface of a fluid vesicle giving luminescent nanosensors.
8. *Regulation of Human Carbonic Anhydrase I (hCAI) Activity by Using a Photochromic Inhibitor* (**Times Cited: 50**)
D. Vomasta, C. Högnner, N. R. Branda,* B. König* *Angew. Chem. Int. Ed.* **2008**, *47*, 7644 - 7647. DOI: [10.1002/anie.200802242](https://doi.org/10.1002/anie.200802242)
Photochromic enzyme inhibitor based on a dithienylethene chromophore allows the reversible light controlled inhibition of an enzyme.

9. *Potent and selective inhibitors of breast cancer resistance protein (ABCG2) derived from the p-glycoprotein (ABCB1) modulator tariquidar (Times Cited: 62)*
M. Kühnle, M. Egger, C. Müller, A. Mahringer, G. Bernhardt, G. Fricker, B. König,* A. Buschauer* *J. Med. Chem.* **2009**, 52, 1190 – 1197. DOI: [10.1021/jm8013822](https://doi.org/10.1021/jm8013822)
The compound with currently highest potency and selectivity for ABCG2 inhibition is reported.
10. *Conversion of carbohydrates into 5-hydroxymethylfurfural in highly concentrated low melting mixtures (Times Cited: 91)*
F. Ilgen, D. Ott, D. Kralisch, C. Reil, A. Palmberger, B. König* *Green Chem.* **2009**, 11, 1948 – 1954. DOI: [10.1039/b917548m](https://doi.org/10.1039/b917548m) First report of the efficient and solvent-free conversion of carbohydrates into HMF using a low melting mixture.