H.-G. Schmalz

*The author presented on this page has recently published his **10th article** since 2000 in Angewandte Chemie:* "Addressing Protein–Protein Interactions with Small Molecules: A Pro-Pro Dipeptide Mimic with a PPII Helix Conformation as a Module for the Synthesis of PRD-Binding Ligands": J. Zaminer, C. Brockmann, P. Huy, R. Opitz, C. Reuter, M. Beyermann, C. Freund, M. Müller, H. Oschkinat, R. Kühne, H.-G. Schmalz, *Angew. Chem.* **2010**, *122*, 7265 – 7269; *Angew. Chem. Int. Ed.* **2010**, *47*, 7111 – 7115.

Hans-Günther (Hagga) Schmalz

Date of birth:	June 30, 1957
Position:	Professor of Organic Chemistry at the Universität zu Köln (Germany)
Education:	1983 Diploma in Chemistry, Goethe-Universität, Frankfurt (Germany) 1985 PhD with Gerhard Quinkert, Goethe-Universität, Frankfurt (Germany) 1986–1988 Postdoc with Marty Semmelhack, Princeton University, New Jersey (USA) 1988–1993 Habilitation in Organic Chemistry, Goethe-Universität, Frankfurt (Germany)
Awards:	**1986** Liebig Fellowship (Fonds der Chemischen Industrie); **1998** Teaching Champion, Technische Universität Berlin; **2006** Albert Magnus Teaching Award, Universität zu Köln
Current research interests:	My research mainly focuses on the development of methods and strategies for the stereoselective synthesis of biologically relevant molecules. In this context, we are exploring, among other things, new possibilities to exploit transition-metal organic chemistry, both in a stoichiometric and in a catalytic manner. Current projects in the group cover a rather broad spectrum of organic chemistry (multistep synthesis of natural products and analogues, enantioselective catalysis, bio-organometallic chemistry, supramolecular chemistry, and chemical biology). Natural products continue to be a major source of inspiration and challenge in our research.
Hobbies:	Hiking, traveling, music, chemistry…

I am waiting for the day when someone will discover … an implantable memory chip.

My science "heroes" are …Richard Willstätter and Vladimir Prelog.

When I was eighteen I wanted to be … an adventurer and a backpacker (well, at that time I was already considering studying chemistry, but I did not feel entirely ready yet).

Chemistry is fun because … the world of molecules is just beautiful, intellectually challenging, and full of surprises. And the synthesis of natural products, for instance, is like mountain climbing: when you eventually reach the top, you feel very happy and you will have learned a lot (even about yourself).

My worst habit is … being somewhat idealistic and shouldering too many responsibilities.

Young people should study chemistry because … it is fun, and because we will need excellent chemists in the future to address key challenges of humankind (fighting cancer and infectious and age-associated diseases, unraveling the molecular secrets of life, developing better materials, making sustainable use of resources…).

My 5 top papers:

1. "Enantioselective Cu-Catalyzed 1,4-Addition of Grignard Reagents to Cyclohexenone Using Taddol-Derived Phosphine-Phosphite Ligands and 2-Methyl-THF as a Solvent": T. Robert, J. Velder, H.-G. Schmalz, *Angew. Chem.* **2008**, *120*, 7832 – 7835. (In this paper we demonstrate the usefulness of a novel class of modular chiral ligands developed in our laboratory.)
2. "Iron-Containing Nucleoside Analogues with Pronounced Apoptosis-Inducing Activity": D. Schlawe, A. Majdalani, J. Velcicky, E. Hessler, T. Wieder, A. Prokop, H.-G. Schmalz, *Angew. Chem.* **2004**, *116*, 1763 – 1766. (This communication was our first contribution to the field of bio-organometallic chemistry. Originally, we intended to use an $\{Fe(CO)_3\}$ fragment as a disposable unit to control nucleobase introduction, and we were really surprised when we discovered the biological activity of the complexes themselves.)
3. "Facile Construction of the Colchicine Skeleton By a Rhodium-Catalyzed Cyclization/Cycloaddition Cascade": T. Graening, W. Friedrichsen, J. Lex, H.-G. Schmalz, *Angew. Chem.* **2002**, *114*, 1594 – 1597; *Angew. Chem. Int. Ed.* **2002**, *41*, 1524 – 1526. (This work was our ticket to colchicine chemistry, a field we are still very interested in.)
4. "Enantioselective Synthesis of the Aglycones of Pseudopterosin and *seco*-Pseudopterosin via a Common Synthetic Intermediate": H.-G. Schmalz, A. Majdalani, *Synlett* **1997**, 1303 – 1305. (In this paper, we describe an unconventional, highly stereoselective synthesis of relevant marine natural products, as a particular highlight of arene–chromium chemistry in organic synthesis).
5. "Radical Additions to (η^6-Arene)(tricarbonyl)-chromium Complexes: Diastereoselective Synthesis of Hydrophenalene and Hydrobenzindene Derivatives by Samarium(II) Iodide Induced Cyclization": H.-G. Schmalz, S. Siegel, J. W. Bats, *Angew. Chem.* **1995**, *107, 2597–2599; Angew. Chem. Int. Ed. Engl.* **1995**, 34, 2383 – 2385. (With this paper we showed that radical reactions of transition-metal–π complexes can be exploited in a synthetically useful manner. In addition, we gave a first example for the "electron-transfer-driven" addition of SmI_2-generated ketyl radicals to activated (electron-poor) arenes.)

DOI: 10.1002/anie.201006120

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