





A. Minnaard

The author presented on this page has recently published his **10th article** in Angewandte Chemie in the last 10 years:

"Catalytic Regioselective Oxidation of Glycosides": M. Jäger, M. Hartmann, J. G. de Vries, A. J. Minnaard, Angew. Chem. 2013, 125, 7963 – 7966; Angew. Chem. Int. Ed. 2013, 52, 7809 – 7812.

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Education: 1992 Masters degree in molecular sciences, Wageningen Agricultural University

1997 PhD with Prof. De Groot, Wageningen Agricultural University 1997–1999 researcher at DSM Fine Chemicals, The Netherlands

Current research Synthesis and immunology of complex glycolipids of M. tuberculosis; development of efficient

interests: catalytic methods for organic synthesis

Hobbies: Reading, music

In a spare hour, I ... play the saxophone.

My favorite saying is ... hmm, did you already try adding HMPA or AIBN?

admire ... my colleague em. Prof. Dr. Jan B. F. N. Engberts for his insights in fundamental chemical phenomena and philosophy of education.

advise my students to ... read, read, read.

My favorite principle is ... the Curtin–Hammett Principle, as it often provides a beautiful explanation for observed (stereo)selectivity, and an efficient synthetic tool.

My chemical "hero" is ... em. Prof. L. Brandsma (preparative organic synthesis at the University of Utrecht).

If I could be a piece of lab equipment, I would be ... a stir bar, being very close to the reaction.

My favorite author (science) is ... Prof. Douglass Taber because of his Organic Highlight columns at http://www.organic-chemistry.org/Highlights.

The greatest scientific advance of the last decade has been ... the massive progress made in the reprogramming of cells, because of its enormous implications.

am waiting for the day when someone will discover ... a reliable and practical tool to predict reaction speed!

The most important future applications of my research ... will hopefully be the use of synthetic glycolipids in an efficient vaccine against tuberculosis.

My first experiment was ... the extraction of nicotine from tobacco.

My 5 top papers:

- "Catalytic Regioselective Oxidation of Glycosides": M. Jäger, M. Hartmann, J. G. de Vries, A. J. Minnaard, Angew. Chem. 2013, 125, 7963-7966; Angew. Chem. Int. Ed. 2013, 52, 7809-7812. (The synthesis and modification of carbohydrates in a protecting groupfree manner.)
- "Total synthesis, stereochemical elucidation and biological evaluation of Ac₂SGL; a 1,3-methyl branched sulfoglycolipid from *Mycobacterium tuberculosis*": D. Geerdink, B. ter Horst, M. Lepore, L. Mori, G. Puzo, A. K. H. Hirsch, M. Gilleron, G. de Libero, A. J. Minnaard, *Chemical Science* 2013, 4, 709 –716. (Multimethyl-branched fatty acids are synthetically accessible and provide access to Ac₂SGL.)
- "Asymmetric Copper-Catalyzed Addition of Grignard Reagents to Aryl Alkyl Ketones": A. V. R. Madduri, S. R. Harutyunyan, A. J. Minnaard, Angew. Chem.

- **2012**, *124*, 3218–3221; *Angew. Chem. Int. Ed.* **2012**, *51*, 3164–3167. (Finally this reaction can now be performed in a catalytic enantioselective manner.)
- 4. "Pd-NHC Catalyzed Conjugate Addition versus the Mizoroki-Heck Reaction": A. L. Gottumukkala, J. G. de Vries, A. J. Minnaard, *Chem. Eur. J.* 2011, 17, 3091 – 3096. (As we carry out conjugate addition reactions with organometallic compounds derived from aryl halides, why don't we use the aryl halides themselves?)
- "Total Synthesis of Enantiopure β-D-Mannosyl Phosphomycoketides from *Mycobacterium tuberculosis*":
 R. P. van Summeren, D. B. Moody, B. L. Feringa, A. J. Minnaard, *J. Am. Chem. Soc.* 2006, 128, 4546–4548. (Established the configuration of the title compound and provided material for extensive immunological studies.)

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