



K. A. Jørgensen

The author featured on this page has published more than **35 articles** in *Angewandte Chemie* since 2000, most recently:

“Highly Efficient Aerobic Oxidative Hydroxylation of Arylboronic Acids: Photoredox Catalysis Using Visible Light”: Y.-Q. Zou, J.-R. Chen, X.-P. Liu, L.-Q. Lu, R. L. Davis, K. A. Jørgensen, W.-J. Xiao, *Angew. Chem.* **2012**, *124*, 808–812; *Angew. Chem. Int. Ed.* **2012**, *51*, 784–788.



The work of K. A. Jørgensen has been featured on the cover of *Angewandte Chemie*:

“Achieving Molecular Complexity by Organocatalytic One-Pot Strategies—A Fast Entry for Synthesis of Sphingoids, Amino Sugars, and Polyhydroxylated α -Amino Acids”: H. Jiang, P. Elsner, K. L. Jensen, A. Falicchio, V. Marcos, K. A. Jørgensen, *Angew. Chem.* **2009**, *121*, 6976–6980; *Angew. Chem. Int. Ed.* **2009**, *48*, 6844–6848.

Karl Anker Jørgensen

Date of birth:	June 15, 1955
Position:	Professor, Aarhus University (Denmark)
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Education:	1984 PhD with Sven-Olov Lawesson, Aarhus University 1985 Postdoc with Roald Hoffmann, Cornell University
Awards:	2000 Villum Kann Rasmussen Award; The Lundbeck Foundation Nordic Research Prize; 2004 Commander of the Order of Rubén Darío of Nicaragua; Commander of the Order of the Dannebrog; 2005 Carlsberg Prize
Research interests:	Asymmetric catalytic reactions
Hobbies:	Art, track and field athletics

The word “scientist” means ... to be creative and innovative.

My secret/not-so-secret passion is ... art in the form of modern paintings, graphics, and rock music.

The most significant scientific advancement of the last 100 years is ... the Haber–Bosch process.

My favorite piece of research is ... the Woodward–Hoffmann rules—they tell us how simple and elegant chemistry is.

The most important things I learned from my parents were ... to get a good education (my mother) and appreciate good handicraft (my father).

If I were not a scientist, I would be ... a medical doctor.

A good work day begins with ... the smile and excitement of a student or postdoc presenting new and exciting chemistry that they have discovered.

The best advice I have ever been given is ... “that chemistry is more than chemistry” by Roald Hoffmann.

The downside of my job ... does not exist.

The best stage in a scientist’s career is ... when they are a postdoc. One has the possibility to devote all their time to research. Later on, one is “forced” into less creative and productive work.

When I’m frustrated ... I run in the forest.

My favorite author is ... Primo Levi.

My 5 top papers:

1. “Binding of alkenes to the ligands in OsO_2X_2 ($\text{X} = \text{O}, \text{NR}$) and $\text{CpCo}(\text{NO})_2$. A frontier orbital study on the formation of intermediates in the transition-metal-catalyzed synthesis of diols, amino alcohols and diamines”: K. A. Jørgensen, R. Hoffmann, *J. Am. Chem. Soc.* **1986**, *108*, 1867. (This was my first paper on catalysis.)
2. “A Highly Diastereo- and Enantioselective $\text{Ti}(\text{OTos})_2$ -TADDOLate Catalyzed 1,3-Dipolar Cycloaddition Reaction between Alkenes and Nitrones”: K. V. Gothelf, I. Thomsen, K. A. Jørgensen, *J. Am. Chem. Soc.* **1996**, *118*, 59. (The first reported highly enantioselective 1,3-dipolar cycloaddition reaction.)
3. “Direct Organo-Catalytic Asymmetric α -Amination of Aldehydes—A Simple Approach to Optically Active α -Amino Aldehydes, α -Amino Alcohols, and α -Amino Acids”: A. Bøgevig, K. Juhl, N. Kumaragurubaran, W. Zhuang, K. A. Jørgensen, *Angew. Chem.* **2002**, *114*, 1868; *Angew. Chem. Int. Ed.* **2002**, *41*, 1790. (The first reported example of a highly enantioselective heteroatomic functionalization in organocatalysis.)
4. “Enantioselective Organocatalytic α Sulfenylation of Aldehydes”: M. Marigo, T. C. Wabnitz, D. Fielenbach, K. A. Jørgensen, *Angew. Chem.* **2005**, *117*, 804; *Angew. Chem. Int. Ed.* **2005**, *44*, 794. (The TMS–prolinol organocatalyst was introduced in this paper.)
5. “A Simple Recipe for Sophisticated Cocktails: Organocatalytic One-Pot Reactions—Concept, Nomenclature and Future Perspectives”: L. Albrecht, H. Jiang, K. A. Jørgensen, *Angew. Chem.* **2011**, *123*, 8642; *Angew. Chem. Int. Ed.* **2011**, *50*, 8492. (This paper shows how many different concepts can successfully be combined with organocatalysis, and its wide applicability.)

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