

Johan Hofkens

Date of birth:	November 5, 1966
Nationality:	Belgian
Position:	Full Professor, Katholieke Universiteit Leuven (K. U. Leuven; Belgium)
Education:	1984–1988 Chemistry, K. U. Leuven (Bachelor 1986, Licentiate 1988) 1988–1993 PhD in Science with Prof. Dr. Frans C. De Schryver, “Photoinduced Intramolecular Charge-Transfer in Donor/Acceptor Substituted Aromatics: The Study of Dynamic Processes in Inhomogeneous Systems is Possible by Time Resolved Confocal Microscopy”, K. U. Leuven 1994–1995 JSPS-postdoctoral fellow with Prof. H. Masuhara, Osaka University (Japan) 1997 Postdoctoral fellow of the FWO (3 months) with Prof. P. Barbara, University of Minnesota, Minneapolis (USA) 1997–2002 FWO (Belgian Science Foundation) postdoctoral fellow with Prof F. C. De Schryver, K. U. Leuven
Awards:	2001 Grammaticakis Neumann award in Photochemistry 2005 Prix FSR Université Catholique Louvain La Neuve 2006 Morino Lecturer (Morino Foundation, Japan) 2007 Finalist Descartes Prize
Professional associations:	2008 Belgium Microscopy Society
Current research interests:	Single-molecule spectroscopy and its application in material science (polymers, catalysts) and biosciences (enzymatics, GFPs, stochastic gene expression, single molecules, and live cells); super-resolution microscopy or nanoscopy; plasmonics and photonics
Hobbies:	Sports (soccer, mountain biking), palaeontology, and travel



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Me, myself, and I

My favourite subject at school was...chemistry (this might have to do with the fact that my dad was a chemistry teacher)!

If I wasn't a scientist, I would be a...professional mountain biker (retired by now).

My most exciting discovery to date has been...that it is possible to circumvent the laws of physics with chemical reactions.

The most exciting thing about my research is...that you are able to see molecules at work just by looking through a microscope.

The best advice I have ever been given is...to read as much cross-disciplinary literature as possible.

The part of my job which I enjoy the most is...to see the excited look on the face of young co-workers when they have done a new, exciting experiment.

My favourite food is...sushi with a Sapporo Black (ever since my postdoctoral stay in Japan).

My favourite band is...still the Doors (although they may not still be fashionable).

My worst habit is...drinking way too much coffee.

The biggest challenge facing chemists is...to find a solution to our energy needs.

My five top papers:

1. “Spatially Resolved Observation of Crystal-Face-Dependent Catalysis by Single Turnover Counting”: M. B. J. Roeffaers, B. F. Sels, H. Uji-i, F. C. De Schryver, P. A. Jacobs, D. E. De Vos, J. Hofkens, *Nature* **2006**, 439, 572–575.
2. “Single Enzyme Kinetics of CALB Catalyzed Hydrolysis”: K. Velonia, O. Flomenbom, D. Loos, S. Masuo, M. Cotlet, Y. Engelborghs, J. Hofkens, A. E. Rowan, J. Klafter, R. J. M. Nolte, F. C. De Schryver, *Angew. Chem.* **2005**, 117, 566–570; *Angew. Chem. Int. Ed.* **2005**, 44, 560–564—featured on the cover (see above right).
3. “Reversible Single-Molecule Photoswitching in the GFP-Like Fluorescent Protein Dronpa”: S. Habuchi, R. Ando, P. Dedecker, W. Verheijen, H. Mizuno, A. Miyawaki, J. Hofkens, *Proc. Natl. Acad. Sci. USA* **2005**, 102, 9511–9516.
4. “Space- and Time-Resolved Visualization of Acid Catalysis in ZSM-5 Crystals by Fluorescence Microscopy”: M. B. J. Roeffaers, B. F. Sels, H. Uji-i, B. Blanpain, P. L’hoest, P. A. Jacobs, F. C. De Schryver, J. Hofkens and D. E. De Vos, *Angew. Chem.* **2007**, 119, 1736–1739; *Angew. Chem. Int. Ed.* **2007**, 46, 1706–1709.
5. “Radical Polymerization Tracked by Single Molecule Spectroscopy”: D. Wöll, H. Uji-i, T. Schnitzler, J. Hotta, P. Deccker, A. Hermann, F. C. De Schryver, K. Müllen, J. Hofkens, *Angew. Chem.* **2008**, 120, 795–799; *Angew. Chem. Int. Ed.* **2008**, 47, 783–787.



The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*:

“Water-Soluble Mono-functional Perylene and Terrylene Dyes: Powerful Labels for Single-Enzyme Tracking”: K. Peneva, G. Mihov, F. Nolde, S. Rocha, J. Hotta, K. Braeckmans, J. Hofkens, H. Uji-i, A. Herrmann, K. Müllen, *Angew. Chem.* **2008**, 120, 3420–3423; *Angew. Chem. Int. Ed.* **2008**, 47, 3372–3375.