

## Professor Stefan Matile

### Curriculum Vitae

1989	Diploma under the Supervision of Professor W.-D. Woggon, University of Zurich
1994	Ph.D. under the Supervision of Professor W.-D. Woggon, Department of Chemistry, University of Zurich, Zurich, Switzerland
1994 – 1996	Swiss NSF Postdoctoral Research Fellow, Department of Chemistry, Columbia University, New York, NY, with Professor K. Nakanishi
1996 – 1999	Assistant Professor of Chemistry, Department of Chemistry, Georgetown University, Washington, DC
1999 – 2003	Associate Professor of Organic Chemistry, Department of Organic Chemistry, University of Geneva, Geneva, Switzerland
2000 – 2005	National Research Program (NRP) Functional Supramolecular Materials, Project Leader
2003 – present	Full Professor of Organic Chemistry, Department of Organic Chemistry, U Geneva
2010 – present	National Centre of Competence in Research (NCCR) Chemical Biology, Founding Member
2011 – 2014	Director, Department of Organic Chemistry, U Geneva (same 2004-2005, 2008-2009)
2013 – 2016	Vice-President, School of Chemistry and Biochemistry, U Geneva
2014 – present	NCCR Molecular Systems Engineering, Founding Member
2016 – present	President, School of Chemistry and Biochemistry, U Geneva

### Research Interests

At the interface of synthetic organic, biological and supramolecular materials chemistry. Emphasis is on functional supramolecular chemistry, synthetic supramolecular systems in action, at work, with a passion for conceptual innovation, the integration of unorthodox interactions, and applications to challenges in nature. Current topics are catalysis (anion- $\pi$  interactions, chalcogen, pnictogen bonds), fluorescent probes (mechanochemistry, force imaging) and cellular uptake (cell-penetrating poly(disulfide)s, cyclic oligochalcogenides). More established topics are multistep organic synthesis (to make all the functional systems), multicomponent surface architectures, ion transport, photosystems and sensors.

### Recent Key Publications (total 294, 53 *JACS*, etc)

- Lopez-Andarias, J.; Bauzà, A.; Sakai, N.; Frontera, A.; Matile, S. "Remote Control of Anion- $\pi$  Catalysis on Fullerene-Centered Catalytic Triads," *Angew. Chem. Int. Ed.* **2018**, *57*, 10883–10887.
- Benz, S.; Poblador-Bahamonde, A. I.; Low-Ders, N.; Matile, S. "Catalysis with Pnictogen, Chalcogen and Halogen Bonds," *Angew. Chem. Int. Ed.* **2018**, *57*, 5408–5412.
- Humeniuk, H. V.; Rosspeinter, A.; Licari, G.; Kilin, V.; Bonacina, L.; Vauthey, E.; Sakai, N.; Matile, S. "White-Fluorescent Dual-Emission Mechanosensitive Membrane Probes that Function by Bending Rather than Twisting," *Angew. Chem. Int. Ed.* **2018**, *57*, 10559–10563.
- Chuard, N.; Poblador-Bahamonde, A. I.; Zong, L.; Bartolami, E.; Hildebrandt, J.; Weigand, W.; Sakai, N.; Matile, S. "Diselenolane-Mediated Cellular Uptake," *Chem. Sci.* **2018**, *9*, 1860–1866.
- Colom, A.; Derivery, E.; Soleimanpour, S.; Tomba, C.; Dal Molin, M.; Sakai, N.; Gonzalez-Gaitan, M.; Matile, S.; Roux, A. "A Fluorescent Membrane Tension Probe," *Nat. Chem.* **2018**, *10*, 1118–1125.
- Derivery, E.; Bartolami, E.; Matile, S.; Gonzalez-Gaitan, M. "Efficient Delivery of Quantum Dots into the Cytosol of Cells Using Cell-Penetrating Poly(disulfide)s," *J. Am. Chem. Soc.* **2017**, *139*, 10172–10175.

**Selected Recent Lectures** (total 267) • 2018 • Johnson Symposium (Stanford) • Torkil Holm Symposium (Denmark) • EMBO (Germany) • FASEB (US) • 18th Bristol Synthesis Meeting • RCOM 10 (France) • 2017 • ISCD-29 (Japan) • ESOC-20 (Germany) • Solvay Colloquium (Belgium) • GRC (CH) •

### Selected Honors

- ERC Advanced Investigator (2010)
- Heilbronner-Hückel Lectureship (SCS-GDCh), Molecular Science Frontier Lecture (Chinese Academy of Sciences), Tateshina, Bürgenstock, JSPS, Krishnan Memorial Lecture, Tarrant, Asan, etc
- Editorial Boards: *Acc. Chem. Res.*, *Helv. Chim. Acta*, *Chem. Eur. J.*, *ChemBioChem*, *Chem. Lett.*, *Chirality*, *ChemistryOpen*