

# Edvinas Orentas

Professor

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## Professional Experience

### Vilnius University

PhD in Chemistry with E. Butkus

*Lithuania*

*Dec. 2009*

### Lund University

Visiting scientist with K. Wärnmark

*Sweden*

*Jan 2010 - Aug 2010*

### Geneva University

PostDoc (Sciex) with S. Matile

*Switzerland*

*2010-2012*

### Vilnius University

Assoc. Professor

*Lithuania*

*2012-2016*

### Vilnius University

Full Professor

*Lithuania*

*2016-present*

## Research

### Supramolecular Chemistry

tubular H-bonded structures, systems chemistry, supramolecular polymers and capsules

### Organic Synthesis

strained bifunctional heterocycles, organic photochemistry

### Functional Materials

stimuli-responsive H-bonded polymers, polychromophoric aggregates, organic photovoltaics

## Recent Lectures

### University of Gothenburg

Invited lecture

*Gothenburg, Sweden*

*Oct. 2016*

### Trends in Organic Chemistry: Self-Assembly

Plenary lecture

*Lund, Sweden*

*Oct. 2016*

### École Polytechnique Fédérale de Lausanne (EPFL)

Invited lecture

*Lausanne, Switzerland*

*Jul. 2016*

### Chemistry and Chemical Technology

Plenary lecture

*Vilnius, Lithuania*

*Apr. 2015*

### 7th EuCeMS Organic Division Young Investigators Conference

Plenary lecture

*Aveiro, Portugal*

*Jul. 2014*

## Teaching

### Supramolecular Chemistry

2nd year Ms

*CHEM, BioCHEM*

*Sep. 2012 - Present*

### Organic Chemistry

2nd year Bs

*CHEM, NanoCHEM*

*Sep. 2014 - Present*

### Stereochemistry of Biomolecules

2nd year Bs

*BioCHEM*

*Sep. 2016 - Present*

## Honors & Awards

1997-1999	Winner of National Chemistry Olympiad	<i>Lithuania</i>
1998	Participant of 30th International Chemistry Olympiad	<i>Melbourne, Australia</i>
1999	Participant of 30th International Chemistry Olympiad, Silver Medal	<i>Bangkok, Thailand</i>
2005	Winner of National Contest of Young Scientists, Lithuanian Academy of Science	<i>Vilnius, Lithuania</i>
2008	SYNFACT Poster Prize, Balticum Organicum Syntheticum	<i>Vilnius, Lithuania</i>
2008	Theodor Grotthuss scholarship, Lithuanian Academy of Science	<i>Vilnius, Lithuania</i>
2009	Participant of 59th Meeting of Nobel Laureates	<i>Lindau, Germany</i>
2010	Laureate of the Best Thesis Contest, Lithuanian Society of Young Researchers	<i>Vilnius, Lithuania</i>
2010-2012	Sciex Postdoctoral Fellowship	<i>Geneva, Switzerland</i>
2015	Young Scientist Award, Lithuanian Academy of Science	<i>Vilnius, Lithuania</i>

## Key Publications (2012-2017)

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1. Qixun Shi, Tomas Javorskis, Karl-Erik Bergquist, Artūras Ulčinas, Gediminas Niaura, Ieva Matulaitienė, Edvinas Orentas, Kenneth Wärnmark. "Stimuli-controlled self-assembly of diverse tubular aggregates from one single small monomer." *Nat. Commun.* **2017**, 8, 14943.
2. Tomas Javorskis, Gintautas Bagdžiūnas, Edvinas Orentas. "N-Tosyl-1, 5, 2, 6-dithiadiazocane: a waste-free electrophilic sulfur reagent for the efficient synthesis of medium-ring S, N-heterocycles." *Chem. Comm.* **2016**, 52, 4325–4328.
3. Dovilė Račkauskaitė, Rokas Gegevičius, Yutaka Matsuo, Kenneth Wärnmark, Edvinas Orentas. "An Enantiopure Hydrogen-Bonded Octameric Tube: Self-Sorting and Guest-Induced Rearrangement." *Angew. Chem. Int. Ed.* **2016**, 55, 208–212.
4. Tomas Javorskis, Simona Sriubaitė, Gintautas Bagdžiūnas, Edvinas Orentas. "N-Protected 1,2-Oxazetidines as a Source of Electrophilic Oxygen: Straightforward Access to Benzomorpholines and Related Heterocycles by Using a Reactive Tether." *Chem. Eur. J.* **2015**, 21, 9157–9164.
5. Dovilė Račkauskaitė, Karl-Erik Bergquist, Qixun Shi, Anders Sundin, Eugenijus Butkus, Kenneth Wärnmark, Edvinas Orentas. "A Remarkably Complex Supramolecular Hydrogen-Bonded Decameric Capsule Formed from an Enantiopure C<sub>2</sub>-Symmetric Monomer by Solvent-Responsive Aggregation." *J. Am. Chem. Soc.* **2015**, 137, 10536–10546.
6. Qixun Shi, Karl-Erik Bergquist, Ruiping Huo, Jilai Li, Mikael Lund, Robert Vácha, Anders Sundin, Eugenijus Butkus, Edvinas Orentas, Kenneth Wärnmark. "Composition- and Size-Controlled Cyclic Self-Assembly by Solvent- and C<sub>60</sub>-Responsive Self-Sorting." *J. Am. Chem. Soc.* **2013**, 135, 15263–15268.
7. Yingjie Zhao, Yuya Domoto, Edvinas Orentas, Cesar Beuchat, Daniel Emery, Jiri Mareda, Naomi Sakai, Stefan Matile. "Catalysis with Anion- $\pi$  Interactions." *Angew. Chem. Int. Ed.* **2013**, 52, 9940–9943.
8. Giuseppe Sforazzini, Edvinas Orentas, Altan Bolag, Naomi Sakai, Stefan Matile. "Toward Oriented Surface Architectures with Three Co-Axial Charge-Transporting Pathways." *J. Am. Chem. Soc.* **2013**, 135, 12082–12090.
9. Vidmantas Bieliūnas, Dovilė Račkauskaitė, Edvinas Orentas, Sigitas Stoncius. "Synthesis, Enantiomer Separation, and Absolute Configuration of 2,6-Oxygenated 9-Azabicyclo[3.3.1]nonanes." *J. Org. Chem.* **2013**, 78, 5339–5348.
10. Edvinas Orentas, Marco Lista, Nai-Ti Lin, Naomi Sakai, Stefan Matile. "A quantitative model for the transcription of 2D patterns into functional 3D architectures." *Nat. Chem.* **2012**, 9, 746–750.
11. Nai-Ti Lin, Andreas J. Vargas, Laure Guenee, Joerg-M. Neudorfl, Sarwar Aziz, Albrecht Berkessel, Edvinas Orentas, Naomi Sakai, Stefan Matile. "Enantioselective self-sorting on planar,  $\pi$ -acidic surfaces of chiral anion- $\pi$  transporters." *Chem. Sci.* **2012**, 4, 1121–1127.