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Chemical control over hemi-indigo photoswitches

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Curriculum vitae

Nol Duindam was born in Rheden on the 19th of February in 1997. In 2015, he graduated *cum laude* from the Lorentz Lyceum in Arnhem. Later, he obtained his bachelor's degree *cum laude* in 2018 at the University of Groningen. During his BSc research, he synthesized photoresponsive bis(biurea) ligands and applied them to anion-templated self-assembly under the supervision of Dr. Sander Wezenberg. He continued at the same university for his master's degree. He performed a research project in the group of Prof. A. J. Minnaard to work on the total synthesis of isotope-labelled archaeal lipids. He performed an external research internship with Prof. C. Hunter at the University of Cambridge, where he studied novel signal transduction systems in synthetic vesicles, after which he graduated *summa cum laude* in 2021. In March 2021, he joined the Wezenberg group as a PhD candidate to study chemical gating of hemi-indigo photochemistry. As part of his academic trajectory, Nol participated in the FMS supramolecular chemistry course and took courses in scientific conduct and advanced project management. From 2022 to 2025 Nol was a member of the institute council as a PhD representative.

Since February 2026, Nol has continued his career as a chemical researcher at the Netherlands Forensic Institute (NFI), where he works on chemical methods for the visualization of latent fingerprints.

List of Publications

- **N. Duindam**, M. S. Bezabih, M. Olivucci, A. M. Brouwer, S. J. Wezenberg, Mechanistic Investigation into a Hemi-Indigo Proton Information Ratchet. *In preparation*.
- **N. Duindam**, S. J. Wezenberg, From Chemical Control over Photoswitches to Artificial Photocycles. *Submitted*.
- **N. Duindam**, F. van Belkum, M. A. Siegler, S. J. Wezenberg, Chloride-Controlled Isomerization of Hemi-Indigo Photoswitches. *Submitted*.
- **N. Duindam**, J. E. Bos, F. van Nifterik, S. J. Wezenberg, Hemi-indigosin: A pH and Red-Light Responsive Transmembrane HCl Transporter. *Angew. Chem. Int. Ed.* **2025**, e15930.
- J. E. Bos, **N. Duindam**, T. J. F. Kock, M. A. Siegler, S. J. Wezenberg, Control of Bilayer Transport through a Photoswitchable Membrane-Stiffening Agent. *Angew. Chem. Int. Ed.* **2025**, e202420232.
- **N. Duindam**, M. van Dongen, M. A. Siegler, S. J. Wezenberg, Monodirectional Photocycle Drives Proton Translocation. *J. Am. Chem. Soc.* **2023**, *145*, 21020-21026.
- D. Villarón, **N. Duindam**, S. J. Wezenberg, Push-Pull Stiff-Stilbene: Proton-Gated Visible-Light Photoswitching and Acid-Catalyzed Isomerization. *Chem. Eur. J.* **2021**, *27*, 17346-17350.
- C. Bravin, **N. Duindam**, C. A. Hunter, Artificial Transmembrane Signal Transduction Mediated by Dynamic Covalent Chemistry. *Chem. Sci.* **2021**, *12*, 14059-14064.

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