



## Guillaume De Bo

Professor of Organic Chemistry, University of Manchester (UK)

**Position:**

**Location:**

**Homepage:**

**ORCID:**

**Education:**

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[orcid.org/0000-0003-2670-6370](https://orcid.org/0000-0003-2670-6370)

2000–2004, MSc in Chemistry, University of Louvain (Belgium)

2004–2009, PhD in Chemistry with Prof. István Markó, University of Louvain (Belgium)

2009–2010, Postdoc with Prof. Jean-François Gohy and Prof. Charles-André Fustin, University of Louvain (Belgium)

2011–2012, Postdoc with Prof. David A. Leigh, University of Edinburgh (UK)

2012–2015, Postdoc with Prof. David A. Leigh, University of Manchester (UK)

**Research:** Polymer mechanochemistry, interlocked molecules, and molecular machines

**Research:**

**Hobbies:**

Birding, hiking, whale watching, and diving

**My first experiment** was the production of oxygen by thermal decomposition of grinded  $\text{KClO}_3$ ... luckily my career didn't start with bang!

**If I could go back in time and do any experiment, it would be** the water supercooling experiment in my undergrad physics lab. I blinked and missed the instantaneous freezing.

**My favorite principle is** Hofstadter's Law, which states that a project always takes longer than expected, even when accounting for the law.

**The most rewarding part of my job is** discussing new results with my team.

**The one piece of lab equipment that I could not be without is** a sound abating enclosure because a sonicator is very noisy.

**My group has fun by** breaking molecules.

**The most challenging aspect of leading a research group is** finding the right people.

**My secret/not-so-secret passion is** ornithology.

**The best advice I have ever been given is** don't smoke.

**I lose track of time when** I'm by the sea.

**When I was a kid, I wanted to be** an Egyptologist.

**If I won a million dollars in the lottery, I would** sail the world.

**I get my best ideas when** I let my mind wander.

**My most favorite drink is** a Belgian beer, preferably a Trappist.

**My favorite song is** "Still D.R.E." by Dr. Dre. Still the beats bang, still helping me writing grants.

## Behind the Science

We were inspired by a maleimide derivative initially described by the O'Reilly group but wanted to suppress its hydrogen bond donating ability to improve its fluorescence emission in polar solvents. Mengjiao had the idea of appending a cyclic amine to the maleimide core. Surprisingly, only the aziridine derivative proved to be a suitable cargo unit as the presence of larger rings decreased the stability of the Diels–Alder adduct connecting the maleimide to the axle of the rotaxane. The result is a mechanochromic rotaxane that releases a versatile and robust fluorescent probe.

*The author presented on this page has published his **first article** as a submitting corresponding author in *Angewandte Chemie*:*

"A Mechanochromic Rotaxane that Releases Azetidene-Trityl-Maleimide, a Versatile Fluorescent Probe": M. Wu, G. De Bo, *Angew. Chem. Int. Ed.* **2025**, *64*, e202501499.

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