



**FKKT**

UNIVERZA V LJUBLJANI  
Fakulteta za kemijo in kemijsko tehnologijo

VABILO NA PREDAVANJE  
V OKVIRU DOKTORSKEGA ŠTUDIJA  
KEMIJSKE ZNANOSTI / INVITATION TO THE  
LECTURE WITHIN DOCTORAL PROGRAMME IN  
CHEMICAL SCIENCES

**Prof. Dr. Wim M. De Borggraeve**

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z naslovom / title:

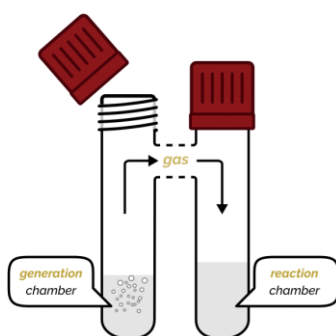
**Application of ex-situ Generated Gases in  
Organic Synthesis**

**v sredo, 1. 4. 2026 ob 15. uri**  
**v predavalnici 1 v 1. nadstropju Fakultete za kemijo**  
**in kemijsko tehnologijo, Večna pot 113 /**  
**on Wednesday, 1. 4. 2026 at 15.00**  
**in lecture room 1, 1st floor at the Faculty of**  
**Chemistry and Chemical Technology, Večna pot 113**

*Vljudno vabljeni! / Kindly invited!*

### Abstract:

Typically, the use of gases in organic synthesis is avoided due to the risks associated with their storage and the handling of pressurized containers. For laboratory-scale synthesis, an elegant solution to this problem was introduced by Skrydstrup in the form of the two-chamber reactor. Our group adopted this enabling technology and, over the years, has contributed to the field of ex situ gas generation for organic synthesis.



In this talk, an overview will be presented of the work carried out within our group dealing with gas surrogates and ex situ gas generation, starting with more traditional approaches involving the generation of carbon monoxide and progressing to our more recent work. In this latter area, we have demonstrated that two-chamber reactors are fundamental enabling tools in SuFEx chemistry, allowing previously inaccessible gases such as thiazyl trifluoride to be safely utilized in the laboratory.

### References

- S. D. Friis, A. T. Lindhardt, T. Skrydstrup, *Accounts of Chemical Research* **2016**, *49*, 594–605.  
 C. Veryser, S. Van Mileghem, B. Egle, P. Gilles, W. M. De Borggraeve, *React Chem Eng* **2016**, *1*, 142–146.  
 C. Veryser, J. Demaerel, V. Bieliunas, P. Gilles, W. M. De Borggraeve, *Organic Letters* **2017**, *19*, 5244–5247.  
 A. Zogu, K. Ullah, S. Spanopoulos, E. Ismalaj, W. M. De Borggraeve, J. Demaerel, *Angew. Chem., Int. Ed.* **2024**, *63*, e202403797.  
 K. Su, L. Van Meervelt, S. H. L. Verhelst, W. M. De Borggraeve, J. Demaerel, *Angew. Chem., Int. Ed.* **2026**, *65*, e23033.