

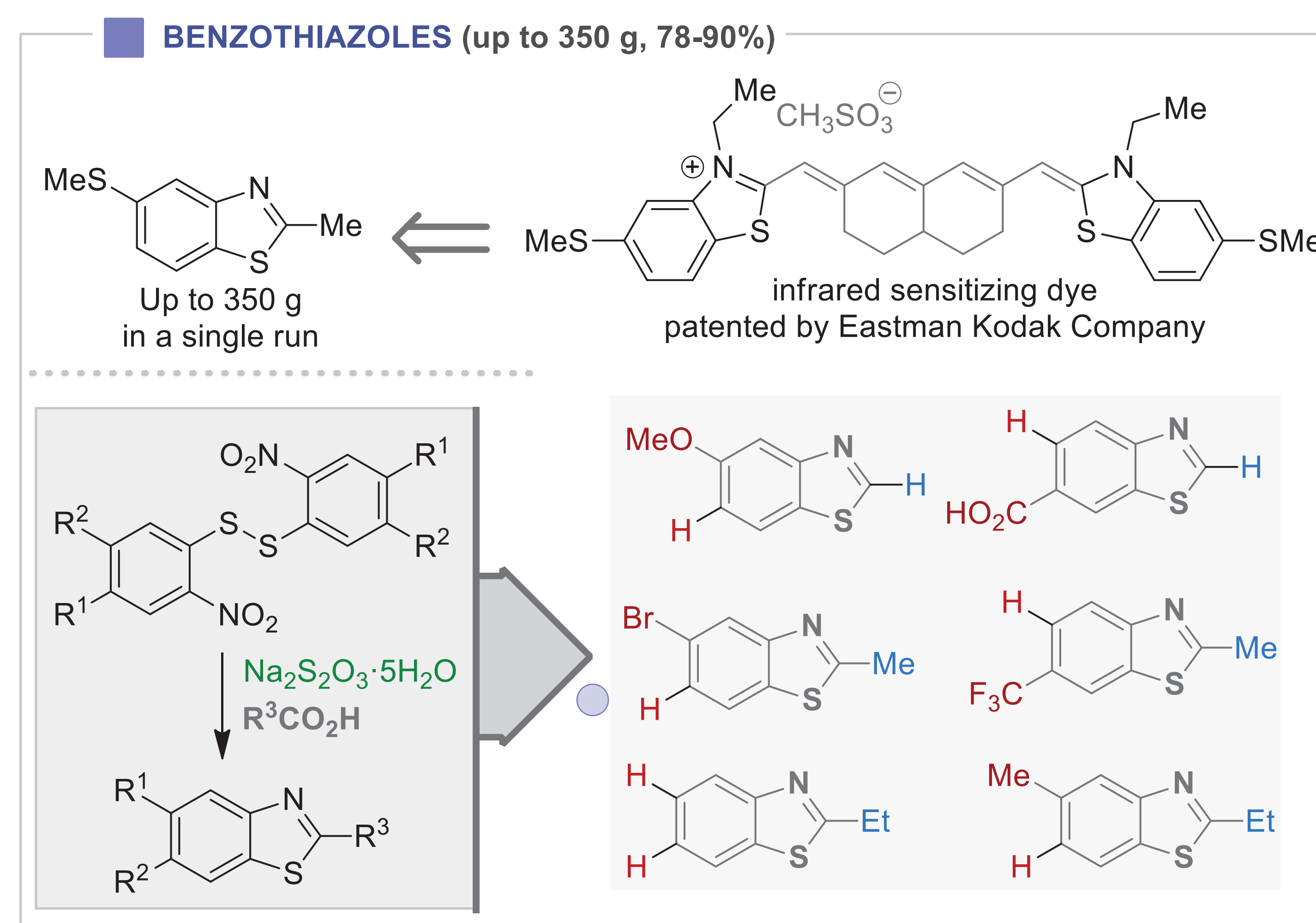
One-step Scalable Access to Benzo-Fused Imidazoles and Oxazoles: A Cost-Effective and EcoFriendly Approach



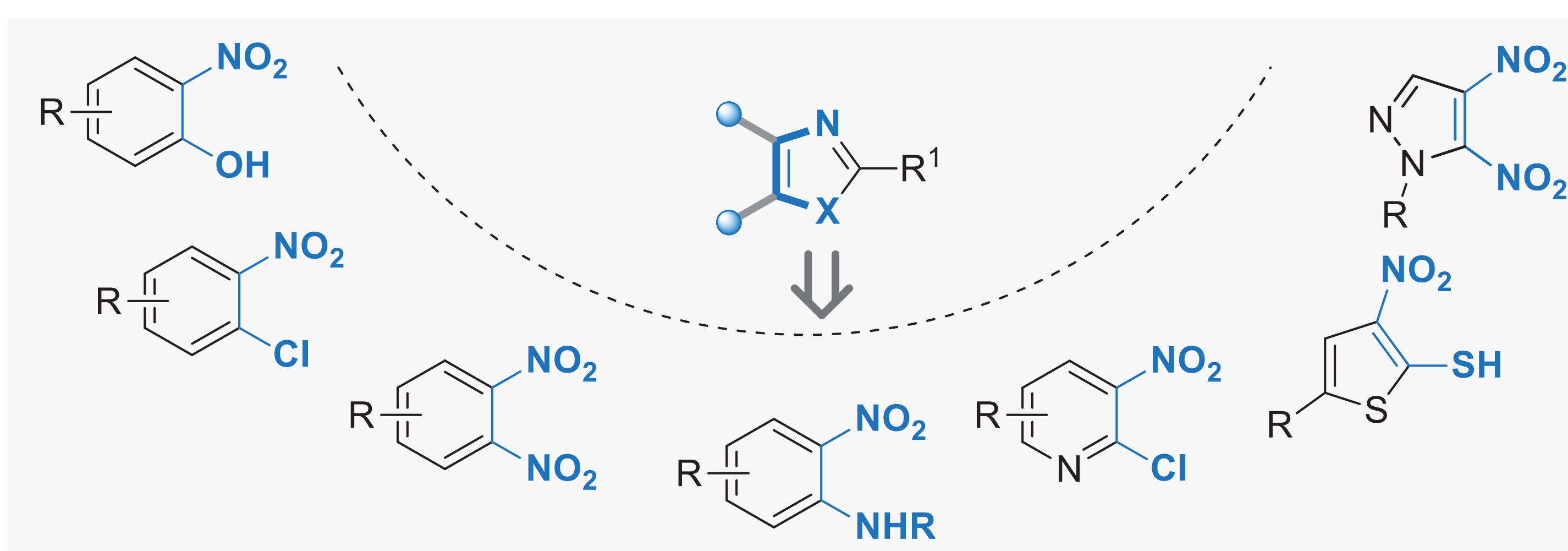
Volodymyr Puskov, Serhii Babii, Alexander Lyapunov, Dmytro Volochnyuk, Serhiy Ryabukhin

Background of the project

- Previously, we elaborated a semi-industrial procedure for synthesis of 2-alkylbenzothiazoles that are widely used as key precursors for dyes, photosensitizers, and fluorescent markers

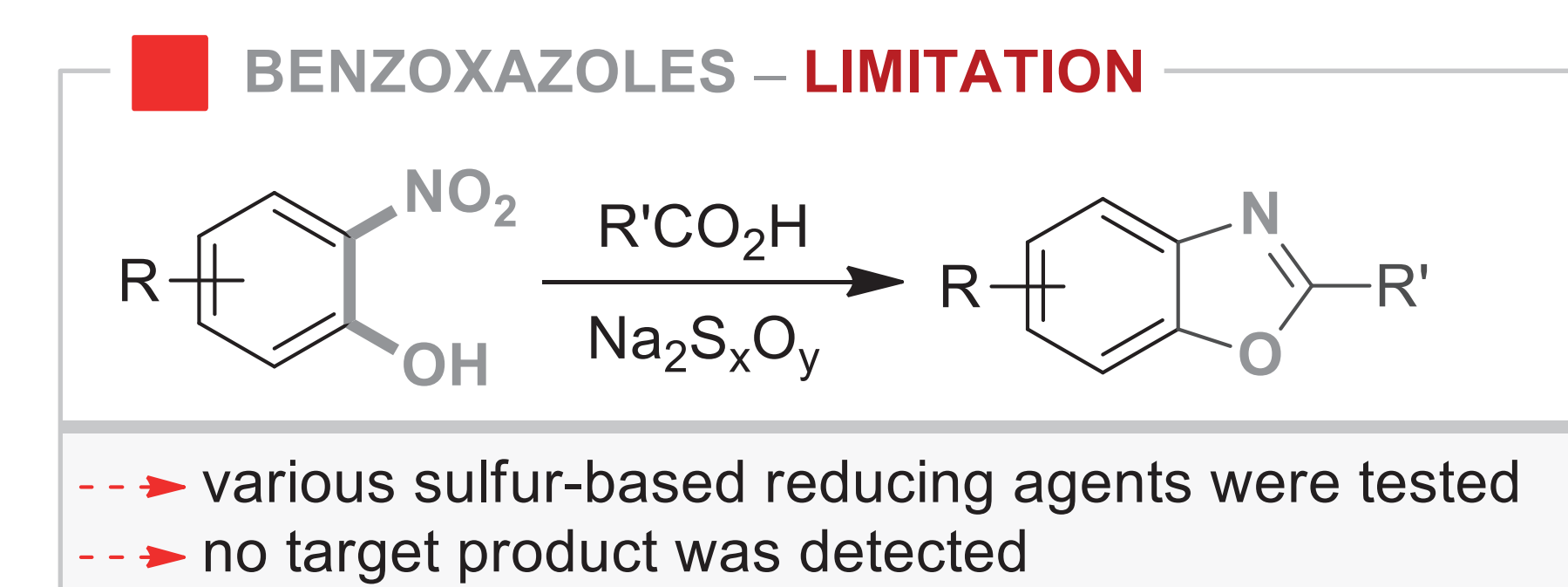
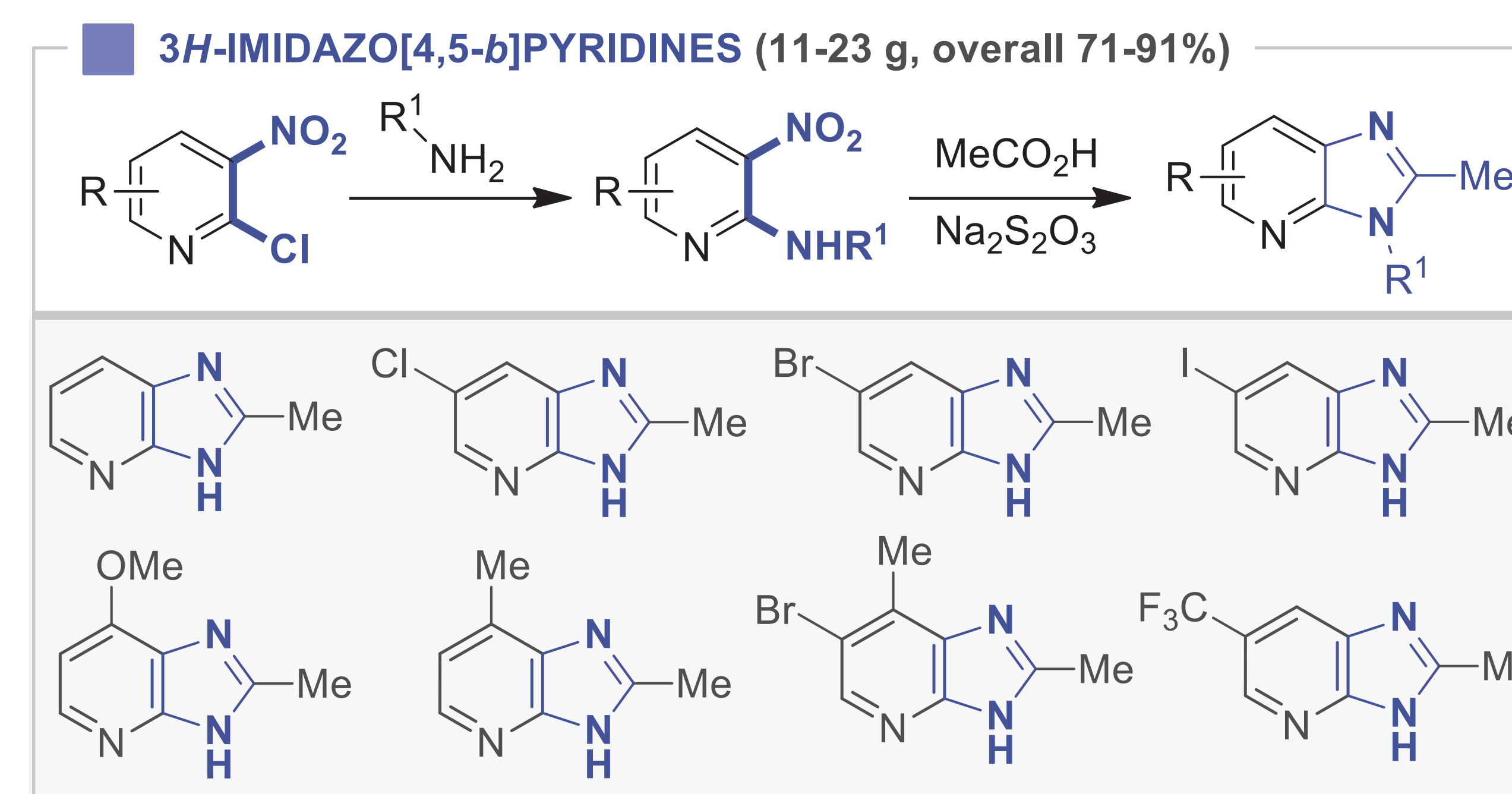
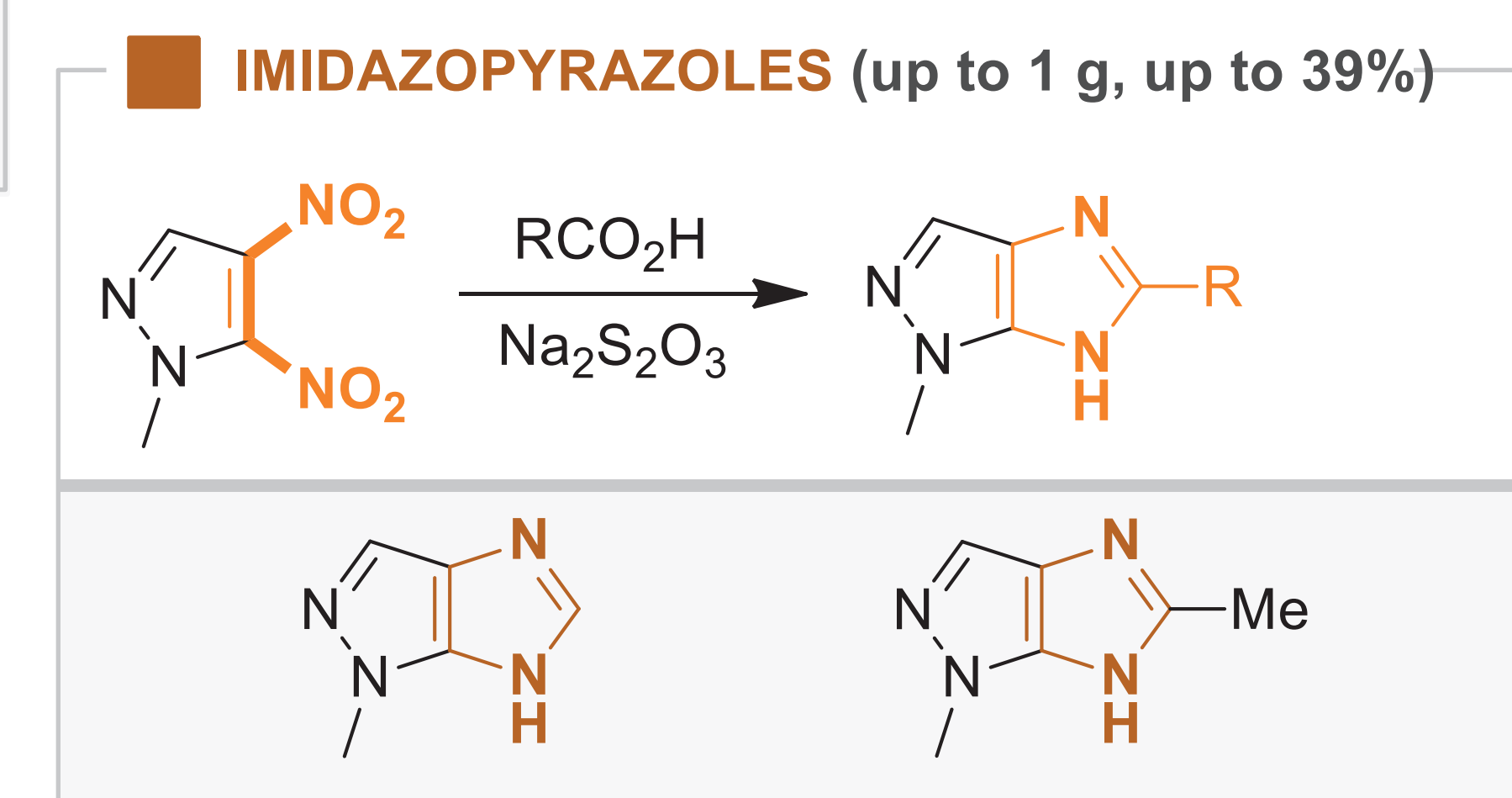
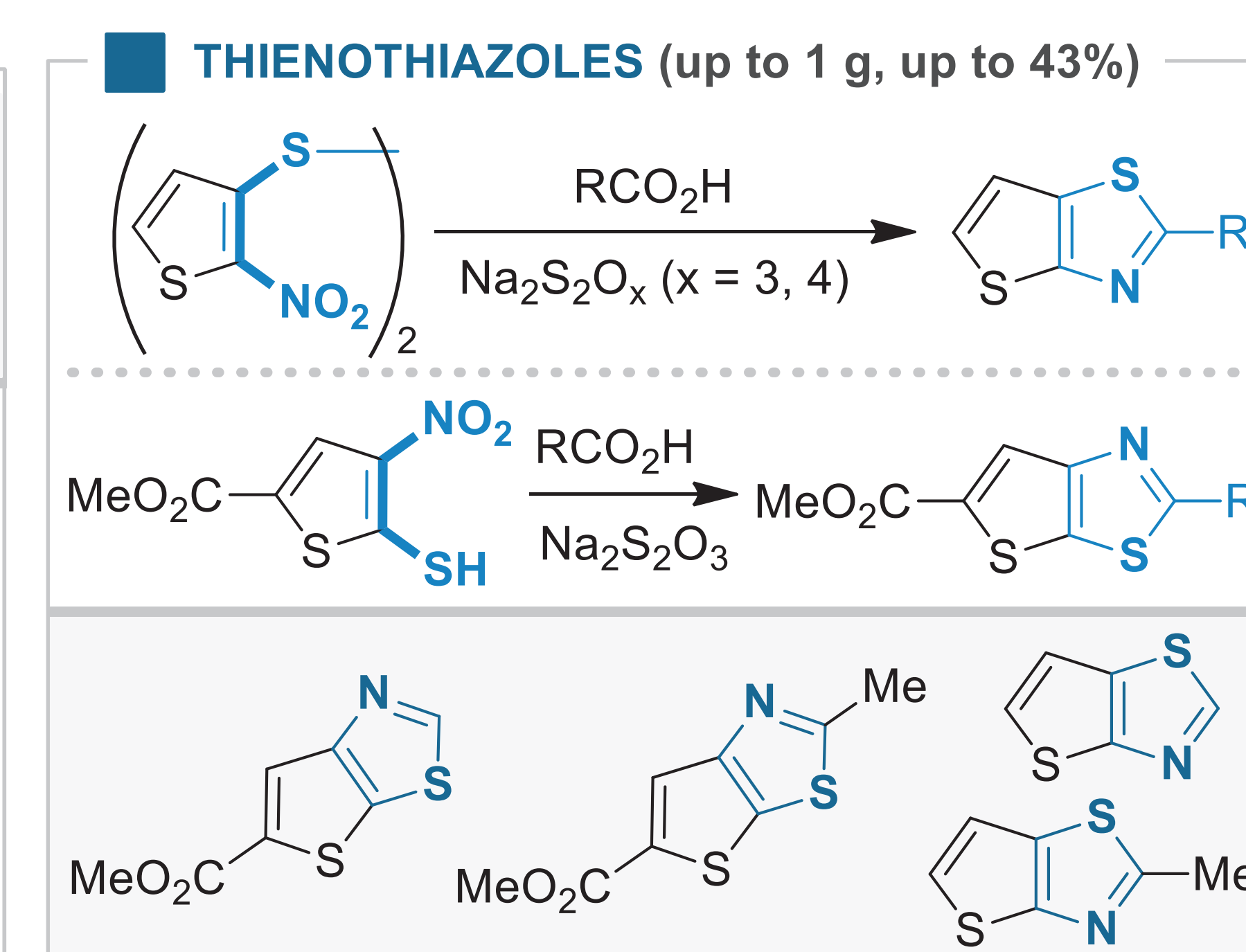
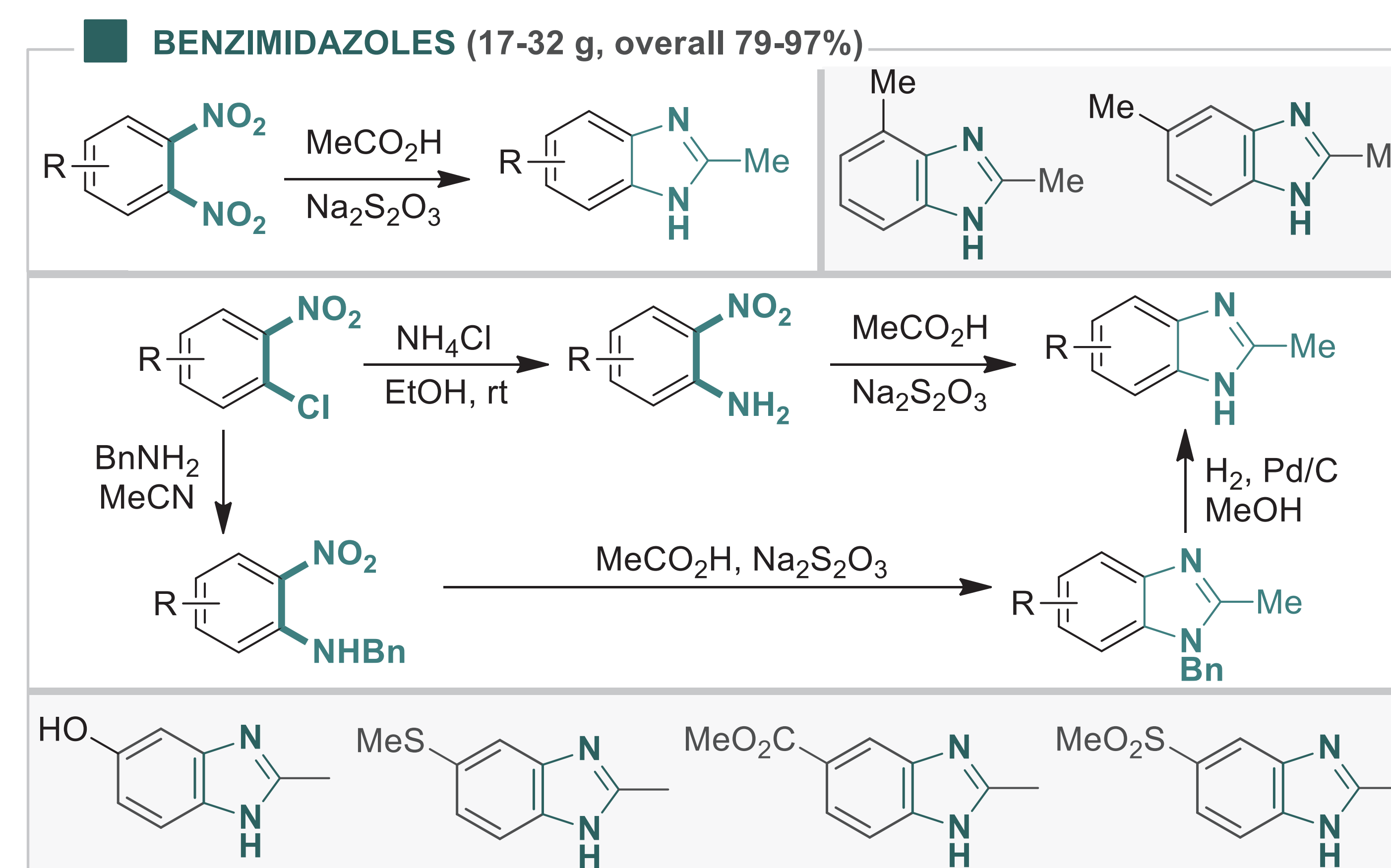


- Our current work is devoted to the preparation of various benzo- and heteroannulated 1,3-azoles under similar conditions.



Scope of the reaction and diversity of the products

- A general strategy for the synthesis of diverse benzo- and heteroannulated azoles in 10–100-gram scales was proposed. Tolerance towards various substituents and functional groups was demonstrated.
- At this scale, not only chemical but also economic and ecological issues become critical. The designed procedures are cost-effective, safe, scalable, based on simple reaction sequences, and easy to scale up
- Various carbo- and heterocyclic cores were constructed that would be useful for the “scaffold hopping” strategy



Contacts

Dmitriy M. Volochnyuk, Prof. Dr. Sci., d.volochnyuk@gmail.com;
Sergey V. Ryabukhin, Prof. Dr. Sci., s.v.ryabukhin@gmail.com

Reference

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