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in kemijsko tehnologijo

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**VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI**

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z naslovom:

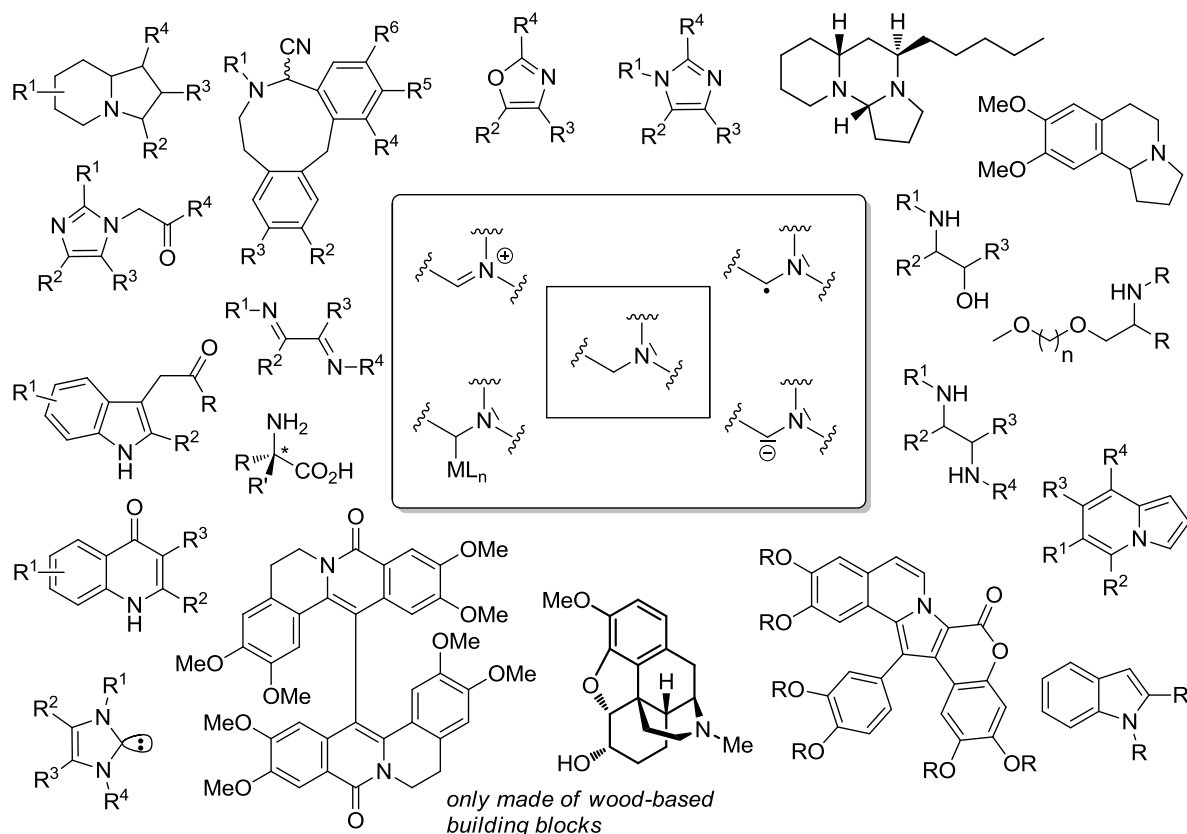
**From Polarity Switching of Imines to Bioactive
Natural Products**

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za kemijo in kemijsko tehnologijo, Večna pot 113

Vljudno vabljeni!

Povzetek

The nucleophilic reactivity of amine nitrogen influences adjacent carbon atoms in a characteristic fashion. Amines are readily converted to imines or iminium ions and their transformation to α -aminonitriles allows to stabilize a negative charge at the formerly electrophilic imine/iminium carbon.¹ Moreover, H-abstractions to form α -amino radicals as well as the insertion of transition metals into C_{α} -H bonds are facilitated by the neighboring lone pair. The application of all four reactivity modes will be demonstrated in various approaches to N-heterocycles and late-stage functionalization reactions.² Moreover, sustainable approaches towards natural products and other chemicals based on the same principles will be presented.³



References:

- [1] a) T. Opatz, *Synthesis* **2009**, 1941; b) N. Otto, T. Opatz, *Chem. Eur. J.* **2014**, *20*, 13064
- [2] a) G. Lahm, J.-G. Deichmann, A. Rauen, T. Opatz, *J. Org. Chem.* **2015**, *80*, 2010; b) G. Lahm, T. Opatz, *J. Org. Chem.* **2015**, *80*, 12711; c) G. Lahm, T. Opatz, *Org. Lett.* **2014**, *16*, 4201; d) A. M. Nauth, N. Otto, T. Opatz, *Adv. Synth. Catal.* **2015**, *357*, 3424
- [3] D. Stubba, G. Lahm, M. Geffe, J. W. Runyon, A. J. Arduengo III, T. Opatz, *Angew. Chem. Int. Ed.* **2015**, *54*, 14187