



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

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z naslovom:

**Assembling the N,O-Heterocycle Mosaic**

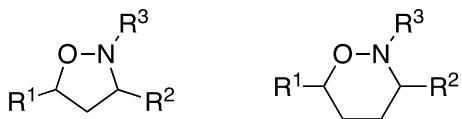
**v petek, 11. aprila 2014 ob 14:00 uri**  
v predavalnici 223, na Fakulteti  
za kemijo in kemijsko tehnologijo, Aškerčeva 5

*Vljudno vabljeni!*

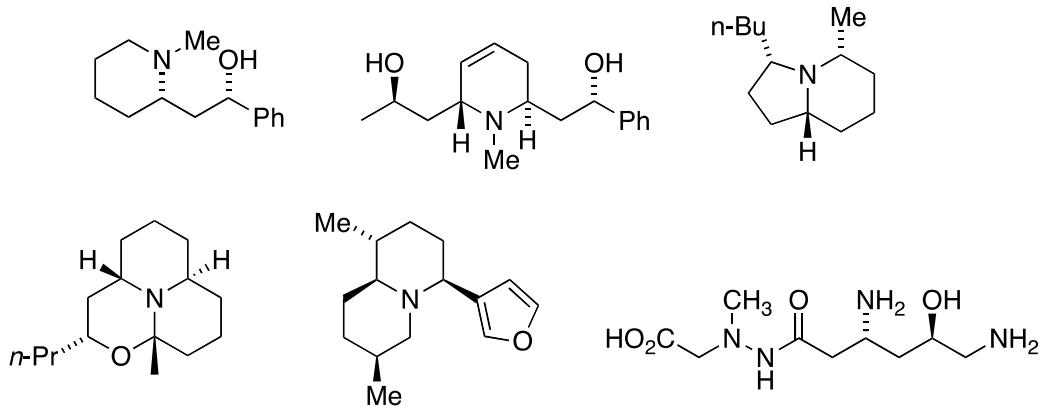


## Abstract

Over the last ten years, my students have developed a variety of methods for the synthesis of isoxazolidines and tetrahydroooxazines by cyclisation reactions, rather than the traditional cycloaddition reactions. This has been described by Kocovsky as “assembling a mosaic”.<sup>1</sup> These cyclisations include cyclocarbonylation, aza-Michael addition and Claesson allene cyclisation. The methods have now been supplemented by the application of *N*-acyl iminium ion chemistry.



These reactions have been (or are being) employed in the synthesis of a number of alkaloids, including sedamine, sedinine, monomorine, porantheridine, deoxynupharidine and negamycin. Some of these syntheses will be discussed.



<sup>1</sup>. Malkov, A. V.; Barlög, M.; Miller-Poyucká, L.; Kabeshov, M. A.; Farrugia, L. J.; Kocovsky, P. *Chem. Eur. J.* **2012**, *18*, 6873.