

CHIRALITY 2014 27-30 JULY
PRAGUE CZECH REPUBLIC

BOOK OF ABSTRACTS **FINAL PROGRAMME**



Chiral discrimination in diastereomeric salt formation

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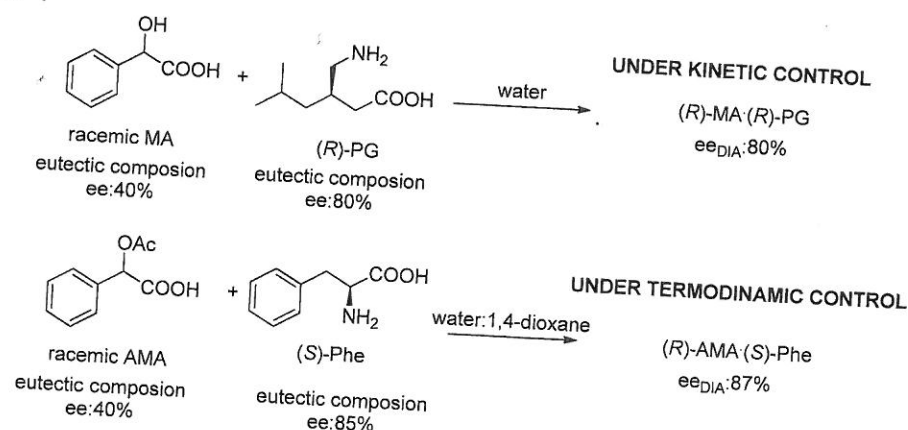
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One commonly used method for obtaining enantiopure acids and amines is optical resolution via diastereomeric salt formation with a chiral resolving agent.¹⁻² Based on previous results, we recognized that the eutectic composition of the racemate and/or the resolving agent determines the composition of the formed (crystalline) diastereoisomers even if the diastereoisomer forming chiral compounds are not structurally similar.³

We wished to study chiral discrimination of racemic mandelic acid derivatives by using, as resolving agent, amphoteric characteristic chiral molecules ((*R*)-pregabalin [(*R*)-PG] and (*S*)-phenylalanine [(*S*)-Phe]).

In view of eutectic composition of racemate and resolving agent, we have found that the eutectic composition of the compounds involved in the kinetically controlled and thermodynamically controlled resolution procedure may influence the efficiency of the enantiomeric separations (Scheme 1).

Scheme 1



This work was supported by the Hungarian Scientific and Research Fund (reg. No. 104769) and by Gedeon Richter Plc. through The Gedeon Richter PhD Scholarship.

1 Jacques, J.; Collet, A.; Wilen, S. H. *Enantiomers, Racemates and Resolution*; Wiley & Sons:New York, **1981**

2 Kozma, D. *Optical Resolution via Diastereomeric Salt Formation*; CRC Press:London, **2002**

3 Pálovics, E.; Szeleczky, Zs.; Földi, B.; Fogassy, E. *RSC Adv.* **2014**, *4*, 21254.