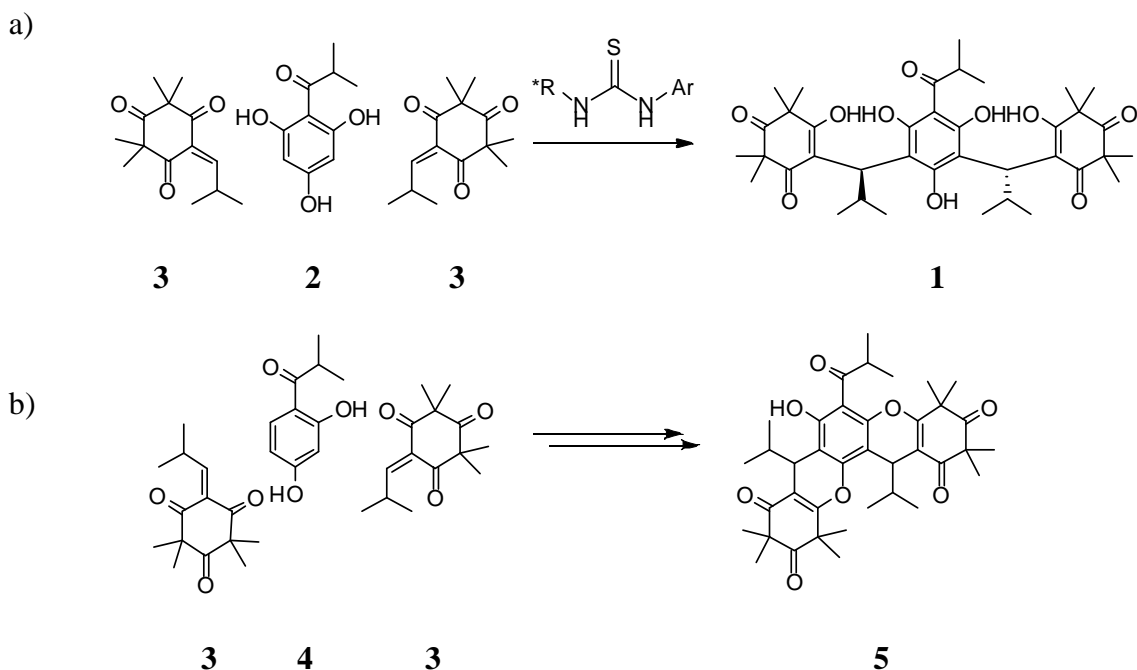


STEREOSELECTIVE SYNTHESIS OF NATURAL MYRTUCOMMULONES

Tobias Jung, and Johann Jauch

Organic Chemistry II, Saarland University, Saarbrücken, Germany

Myrtucommulones first isolated from *myrtus communis* [1] belong to the family of acylphloroglucinols and show various interesting pharmaceutical properties. Due to its special symmetric characteristics, myrtucommulone A (**1**) could only be synthesized either with good enantioselectivity or with high diastereoselectivity. The key reaction is a Michael-Addition or Friedel-Crafts-Alkylation between isobutyryl phloroglucinol (**2**) and isobutyrylidene syncarpic acid (**3**) catalyzed by chiral metal complexes, broensted acids or organocatalysts [2,3]. Our current work is the use of chiral thiourea catalysts and a synthetic approach towards angular pentacyclic myrtucommulone E (**5**) starting from isobutyryl resorcinol (**4**) (Scheme 1).



Scheme 1: a) Reaction for the synthesis of myrtucommulone A (**1**) and b) myrtucommulone E (**5**).

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[3] W.-C. Ye, L. Wang, X.-F. You, Y. Wang, Y.-J. Hu, B.-L. Hou, X. Lu, L.-P. Zhong, L.-J. Hu, X.-Y. Yang, et al., *Chem. Sci.* **2018**, 9, 1488–1495.