

A brief introduction

- prodiginine alkaloids
- bacterial lipochromophores
- marineosins A and B discovered in 2008
- Shi 2016: 19-step total synthesis of the originally proposed structure of marineosin A
- characteristic red color of prodiginosin alkaloid secondary metabolites
- colonies of Gram-negative-producing bacteria resemble droplets of blood
- historical reports of “bleeding” bread

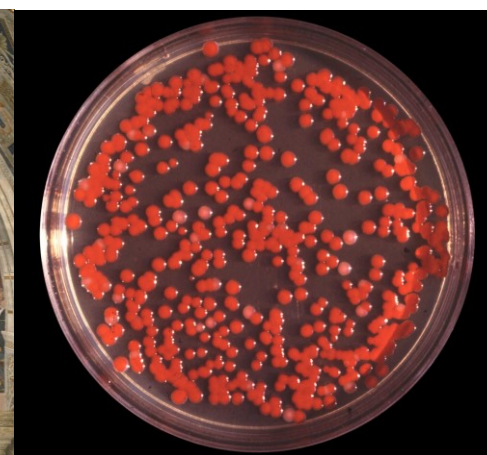
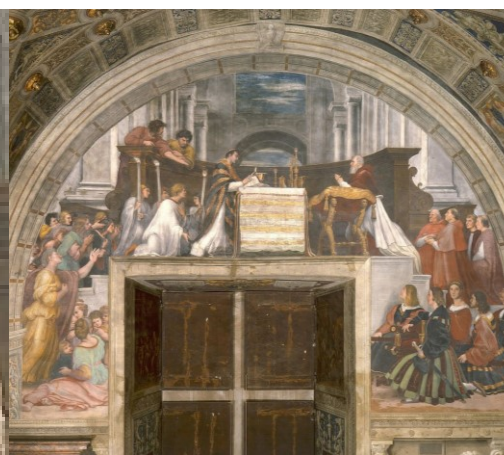


Fürstner's survey of the last 2500 years

Alexander the Great's siege of Tyre in 322 B.C

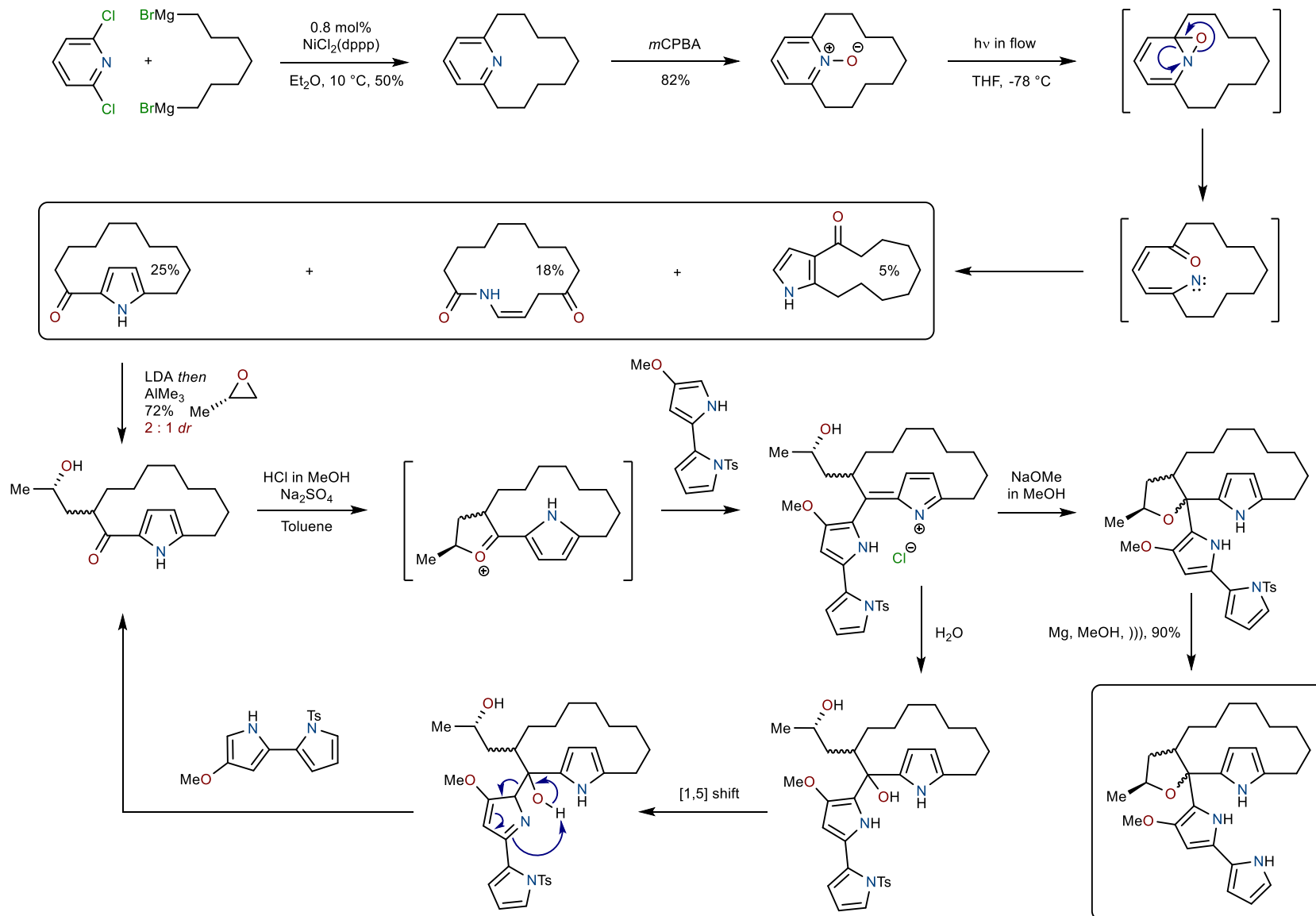


Raphael's “Mass of Bolsena” fresco in the Vatican

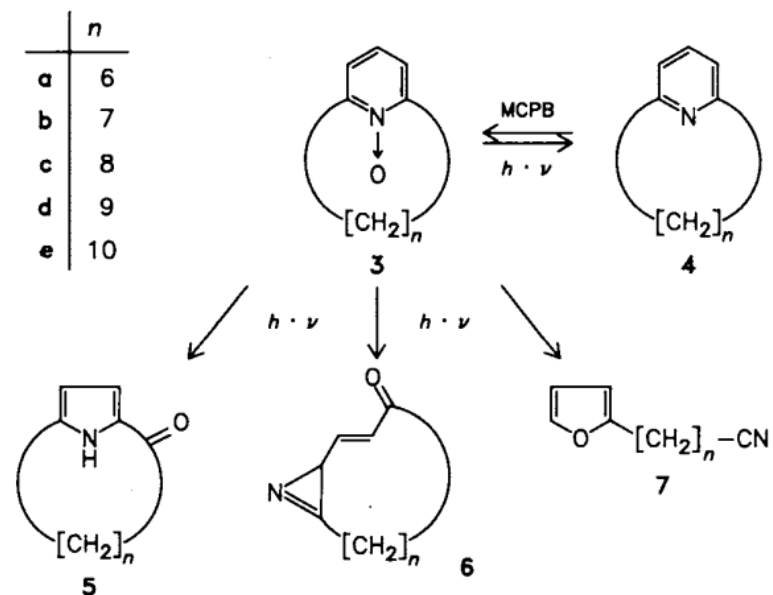
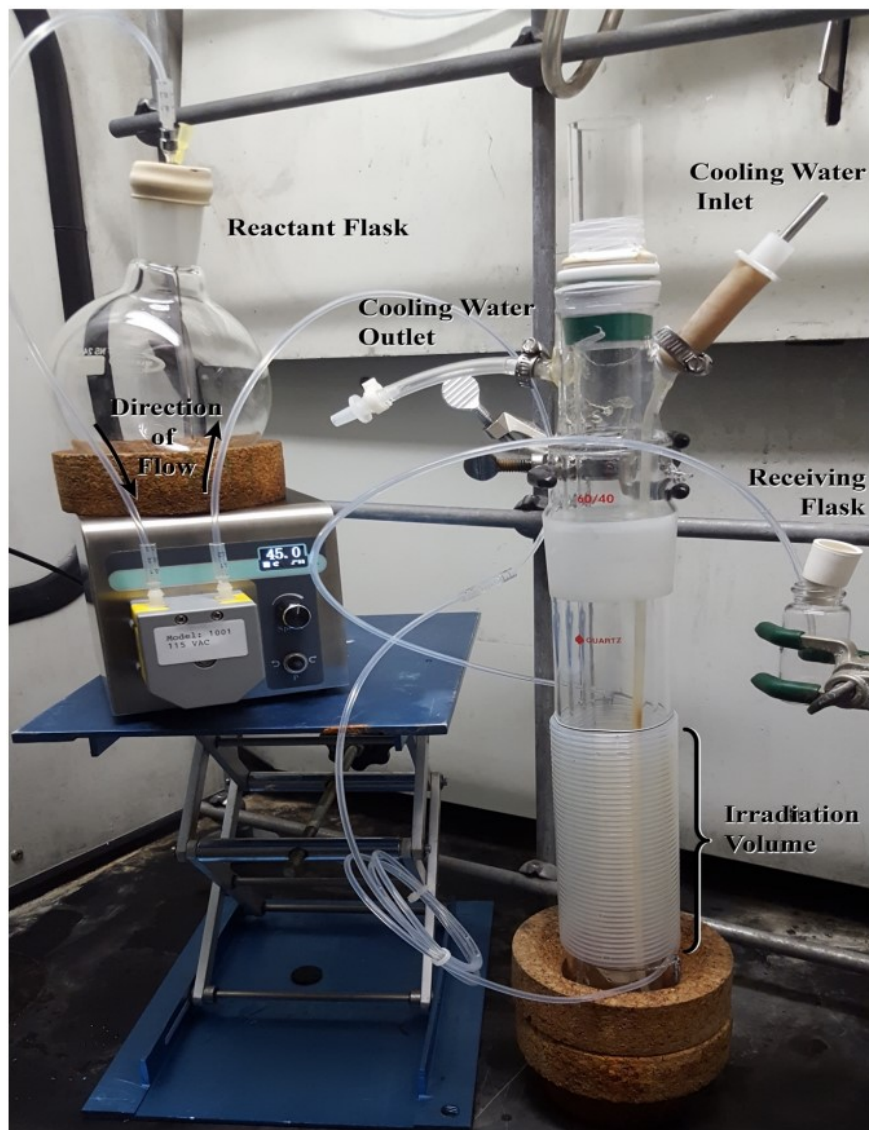


Serratia marcescens on an agar plate

Fürstner A. *Angew. Chem. Int. Ed.* **2003**, *11*, 3582. <https://doi.org/10.1002/anie.200300582>

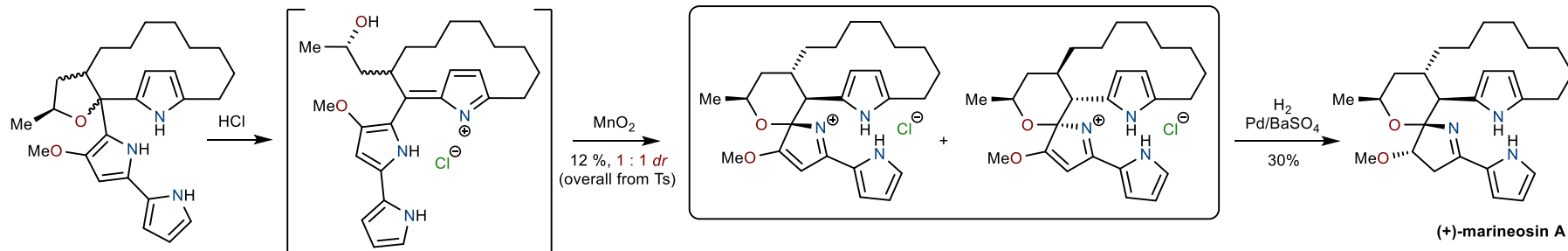


Harran P. G. *J. Am. Chem. Soc.* **2019**, *141*, 2274. <https://doi.org/10.1021/jacs.9b00396>

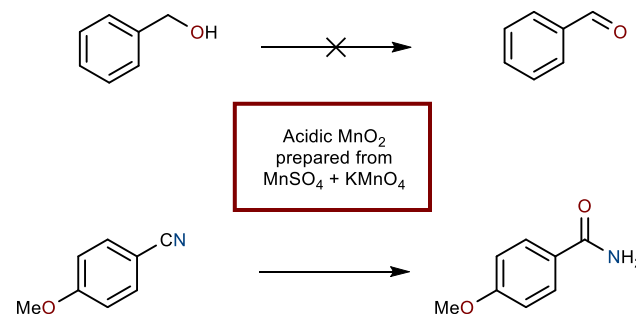
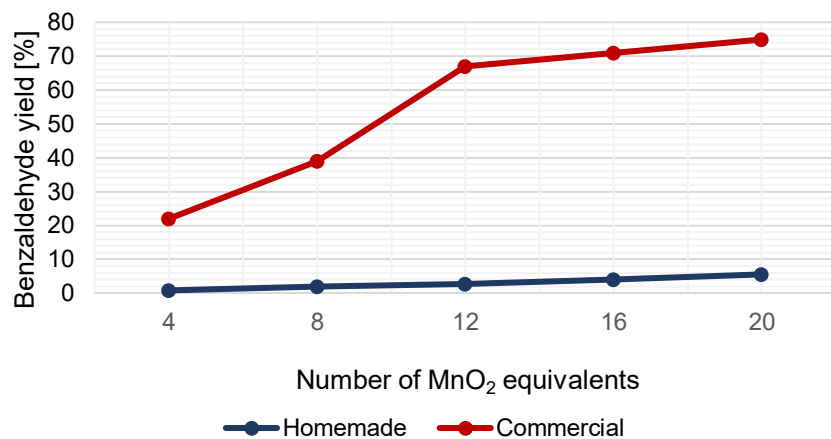


Tab. 1. Ausbeuten und Produktverteilung nach der Photolyse von 3

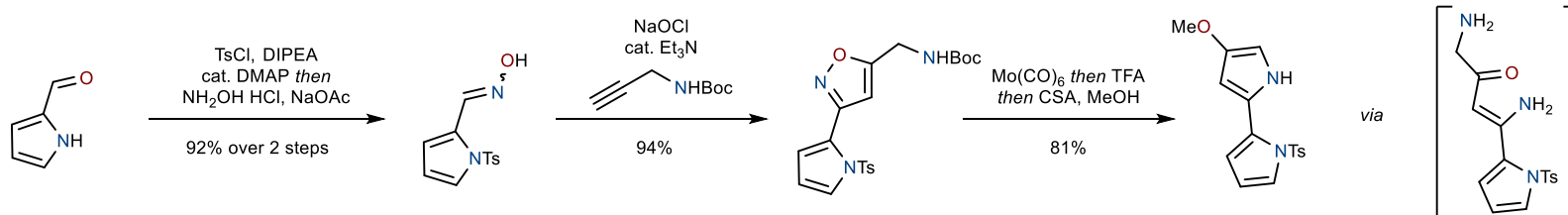
	n	4	% Ausbeute	5	6	7	% Rest	3	Reaktionszeit [h]
a	6	1.0	0.4	—	4.2	—	—	3	
b	7	4.6	1.3	4.0	0.7	20.0	5		
c	8	5.3	0.6	5.2	—	25.0	5		
d	9	—	1.7	1.0	—	9.4	15		
e	10	5.8	11.9	0.4	3.1	7.6	20		



Benzyl alcohol oxidation with MnO_2



Ley S. V. *Org. Lett.* **2014**, *16*, 1062. <https://doi.org/10.1021/ol403591c>



Harran P. G. *Tetrahedron Lett.* **2013**, *21*, 2645. <https://doi.org/10.1016/j.tetlet.2013.03.034>