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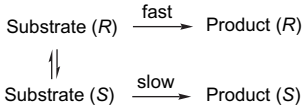
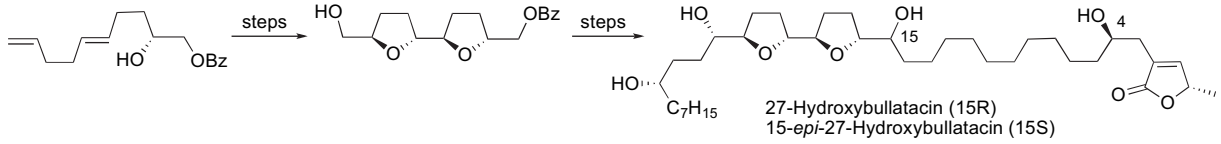
Contents

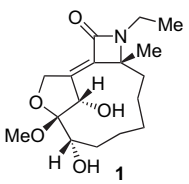
REPORT



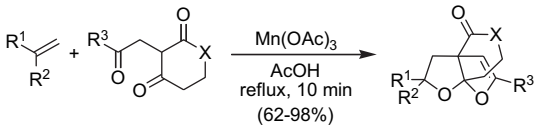
This review is intended to update recent developments in the principal methods used to obtain dynamic kinetic resolution by either enzymatic or non-enzymatic processes, covering the literature from 2003 to 2007. The review clearly demonstrates the explosive growth and power of this methodology and clearly illustrates the diversity of useful products which can be obtained through this concept.

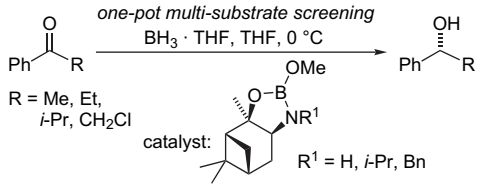
ARTICLES

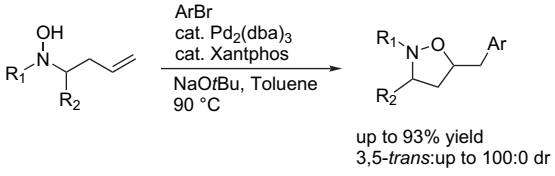


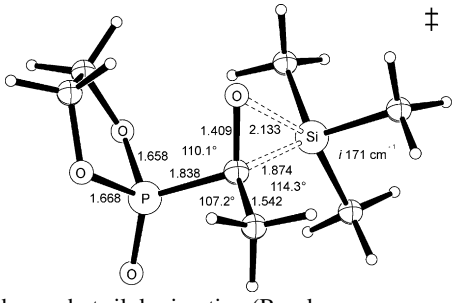


From the liquid culture of *Phyllosticta cirsii* four new oxazatricycloalkenones, named phyllostictine A–D (**1**–**4**), were isolated, and chemically and biologically characterized. Three of them (**1**, **2**, and **4**) proved to have interesting herbicidal activity.

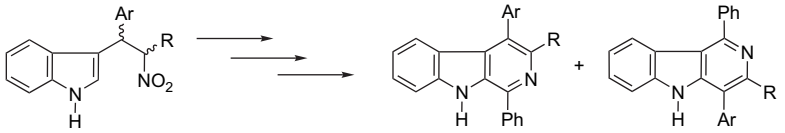


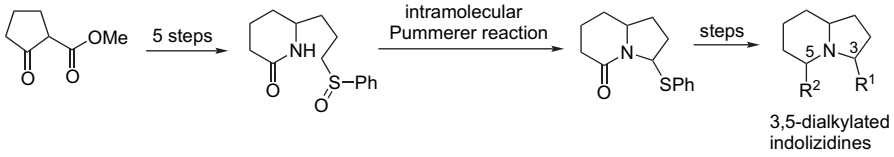


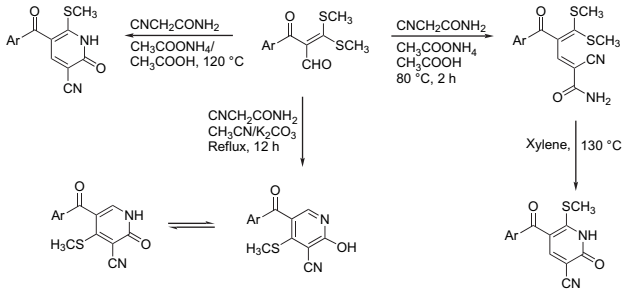


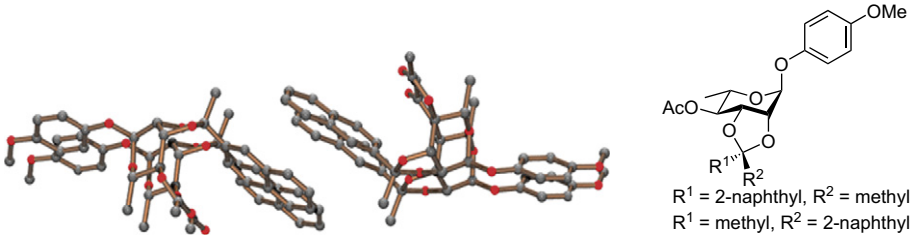


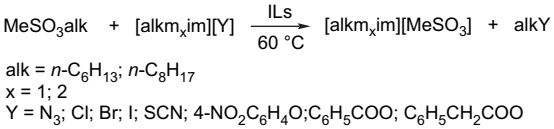
Phosphites are less reactive than cyanide and carbenes, but silyl migration (Brook rearrangement) strongly favors the umpolung step both kinetically (TS is shown) and thermodynamically.

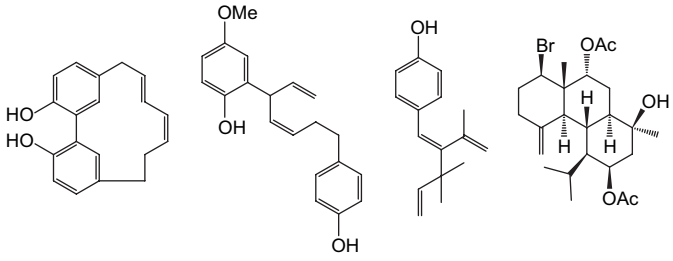


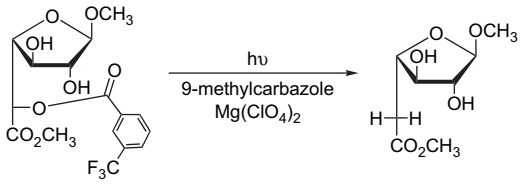


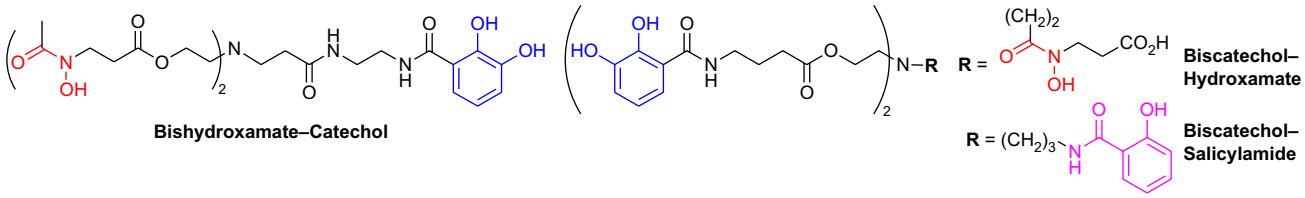


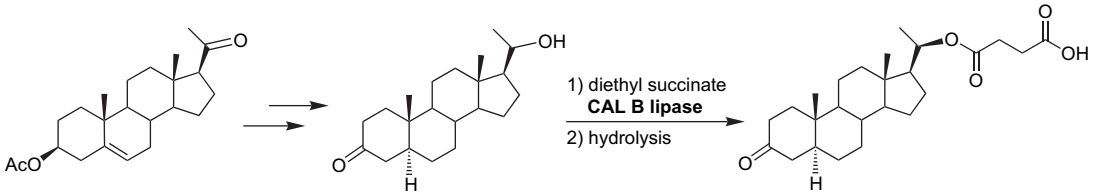


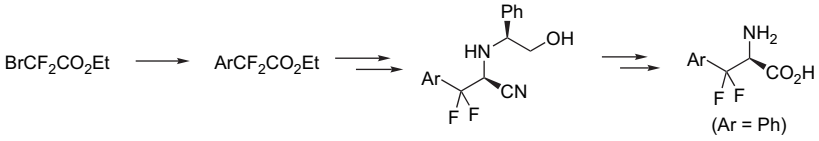


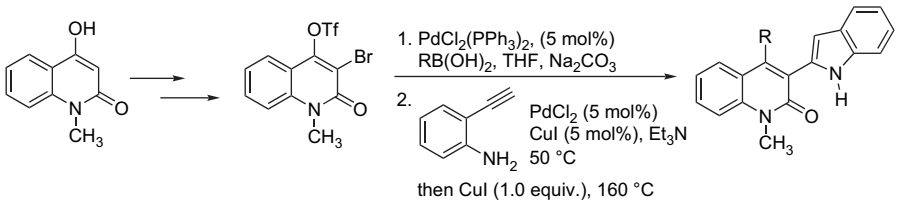


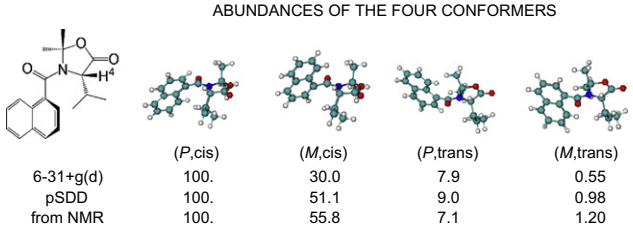


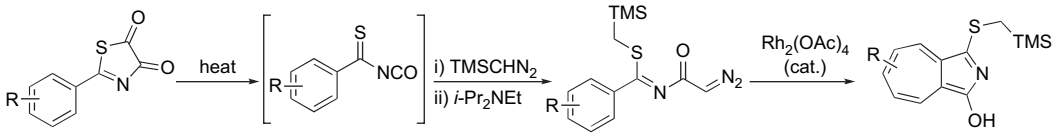


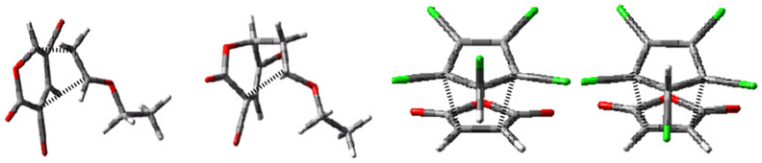


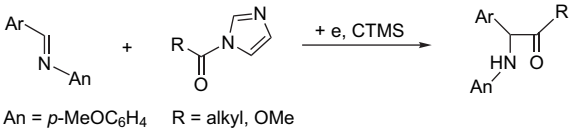


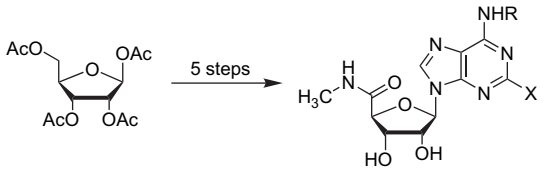




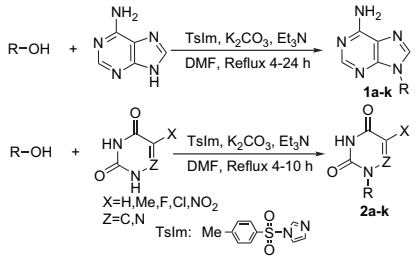


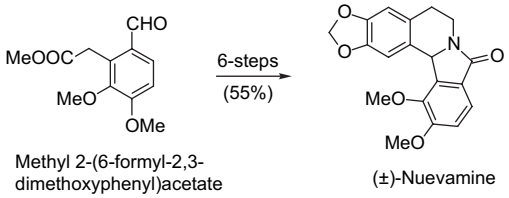


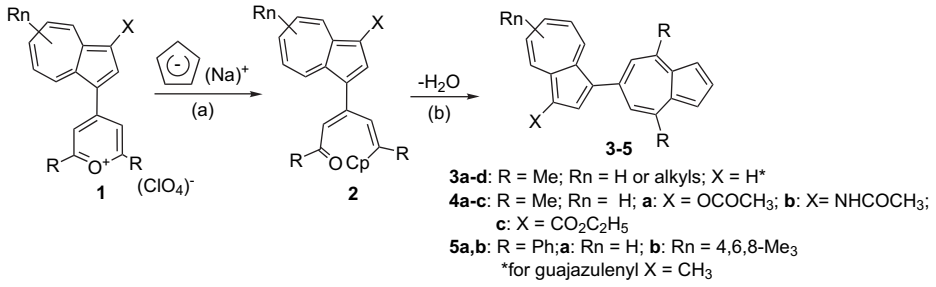


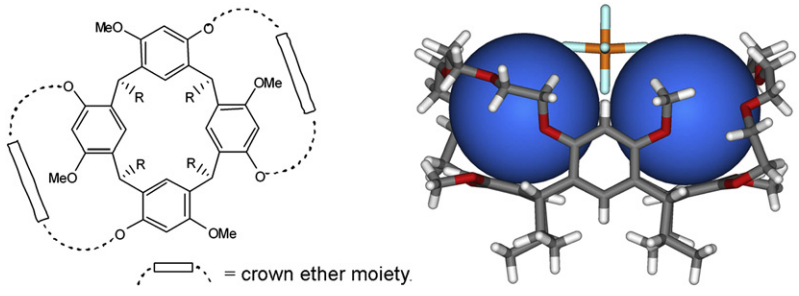


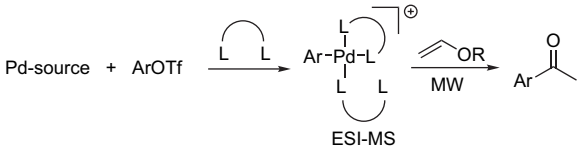
Herein we report a concise synthesis of adenosine-5′-*N*-alkyluronamides in which an enzyme-mediated deacetylation reaction was the key step in the selective modification of the 5′-*N*-position of the ribose unit, prior to a microwave-assisted ribose–purine coupling reaction and ultimately 5′-carboxamide formation with concomitant deprotection.

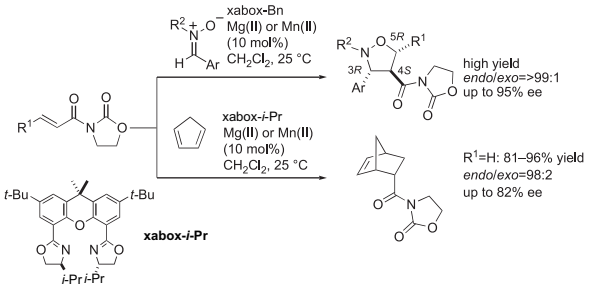


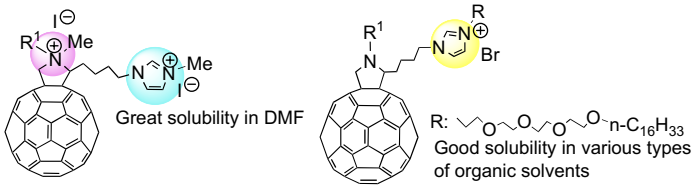


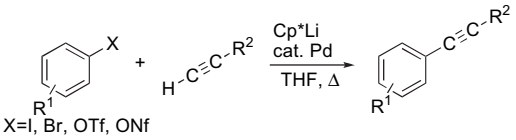


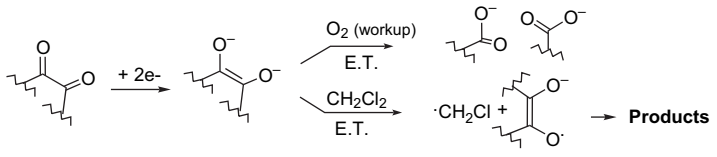


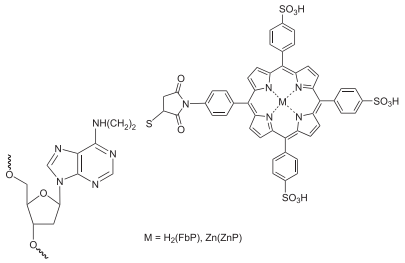




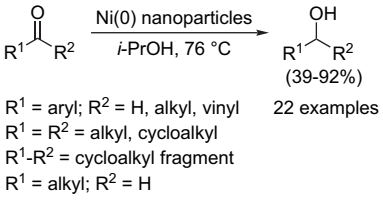


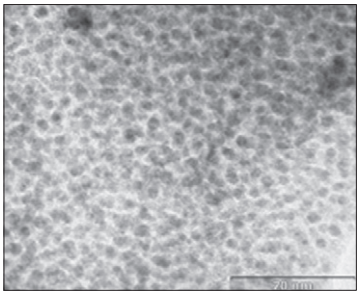


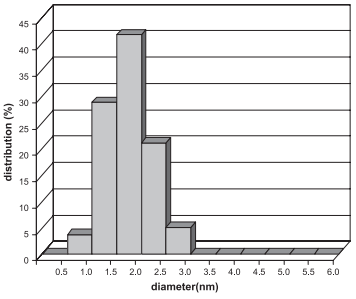


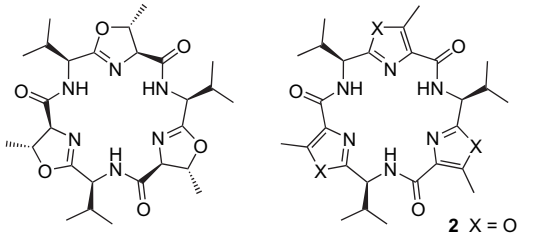


Porphyrin derivatives attached to the N^6-position of the internal adenosine formed various porphyrin dimer structures in the major groove of duplex DNA, where the orientation and the distance between two porphyrins were controlled by the programs of DNA sequences.

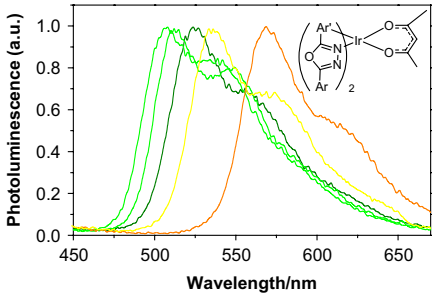


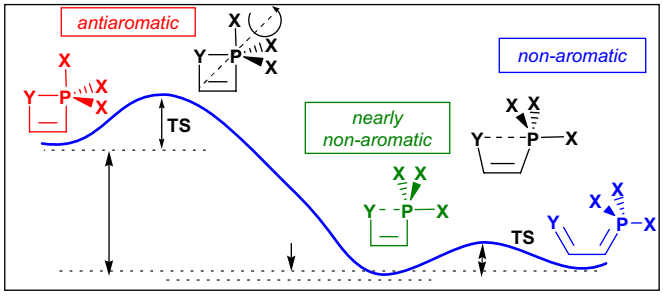


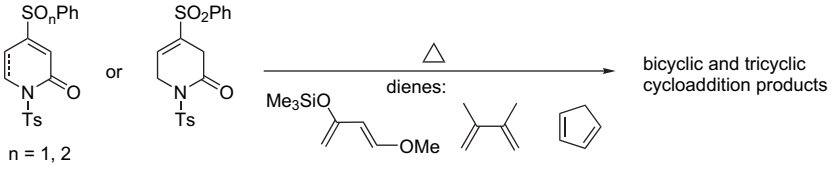




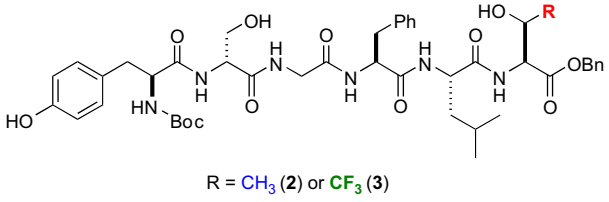
The structures and the flexibility of the westiellamide analogues **2**–**4** depend on the azole system. The aromatic units of **2** are almost coplanar, whereas in the case of **3** and **4** the azole moieties form cone-like structures.





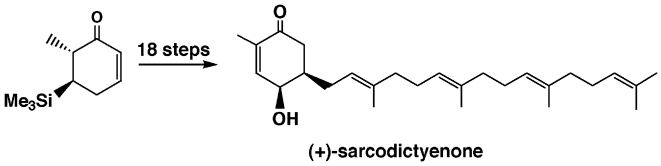


Cycloaddition reactions of sulfoxide- and sulfone-substituted dihydro-2-pyridones and 2-pyridones with electron-rich dienes gave new bicyclic and tricyclic products in good to fair yields.

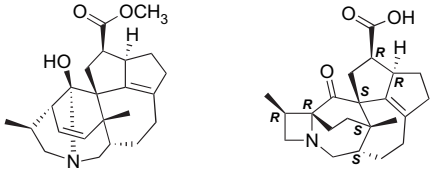


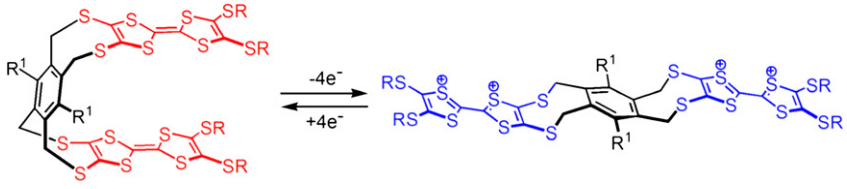
R = CH_3 (**2**) or CF_3 (**3**)

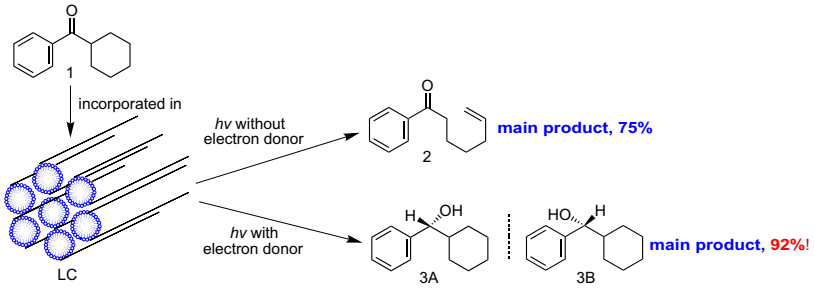
Incorporation of F_3-Thr instead of Thr in the target hexapeptide **2** led to the apparent conformational alteration due to the strong electron-withdrawing effect of the CF_3 group which was unambiguously clarified by comparison of their various NMR measurement results.

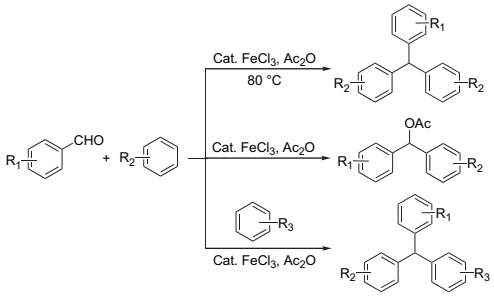


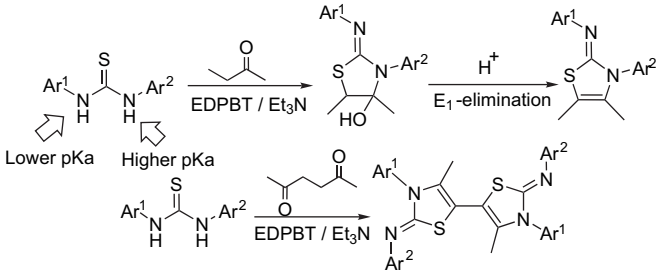
The absolute stereochemistry of (+)-sarcodictyenone was determined.

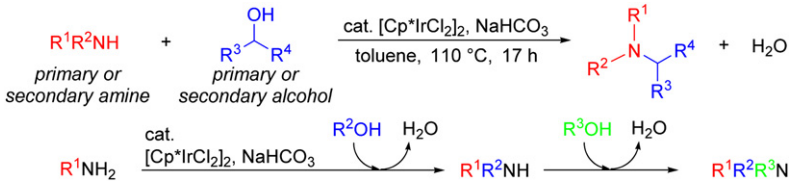


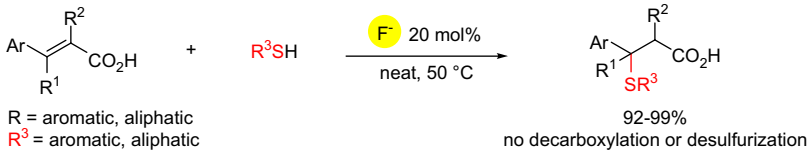


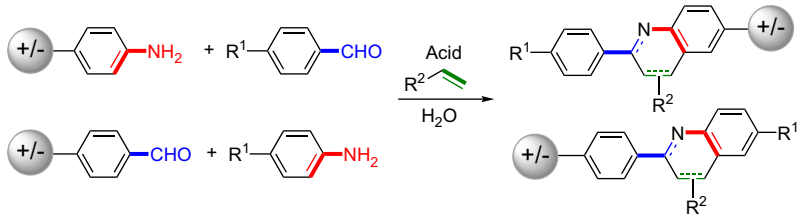


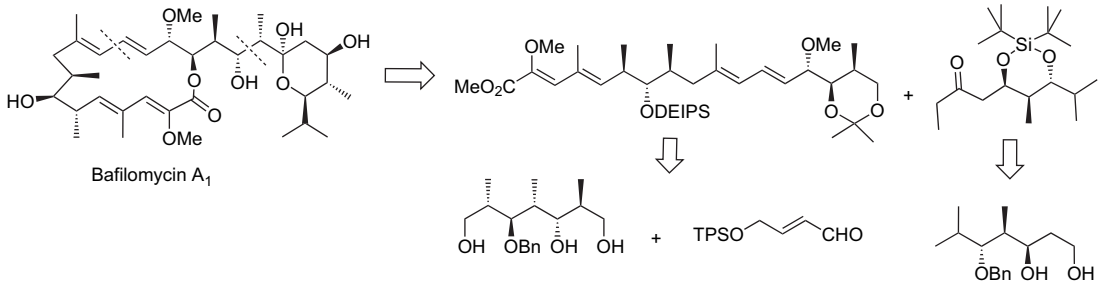


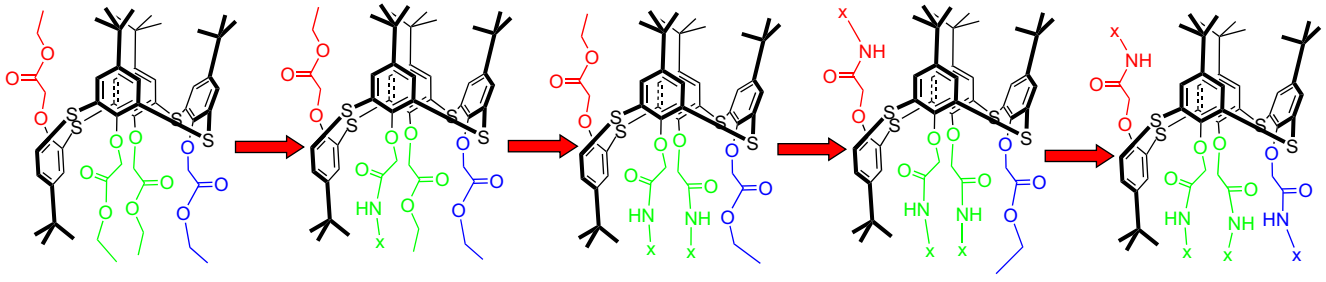












OTHER CONTENT

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Taking advantages of the Onium Salt Supported Organic Synthesis (OSSOS) strategy, synthesis of tetrahydroquinolines and quinolines via multicomponent condensation has been achieved using water as a solvent. *Tetrahedron* **2008**, *64*, 1962–1970.

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