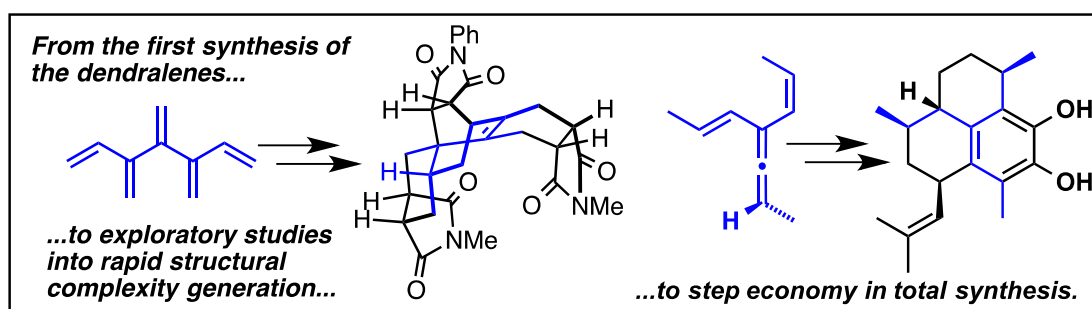


# A Bigger Slice of the $\pi$

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The two simplest branched acyclic structures comprising only conjugated C=C units, namely [3]dendralene (3-methylene-1,4-pentadiene) and [4]dendralene (3,4-dimethylene-1,5-hexadiene), were first reported in 1955 and 1962, respectively. No higher members of the series were described in the literature until 2000. This presentation will describe the modern phase of dendralene (and related  $\pi$ -bond rich hydrocarbon) chemistry. The outcomes of exploratory investigations into rapid structural generation involving dendralenes will be presented, along with methods to control chemoselectivity, regioselectivity and stereoselectivity, and applications of  $\pi$ -bond rich branched hydrocarbons in very short total synthesis.



This talk aims to convince you of three things: (a) that fundamental hydrocarbon chemistry still has significant potential for original discoveries; (b) that at least some of your assumptions about the instability of "polyenes" are wrong, and (c) that  $\pi$ -bond rich olefinic hydrocarbons are, at long last, coming of age.

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