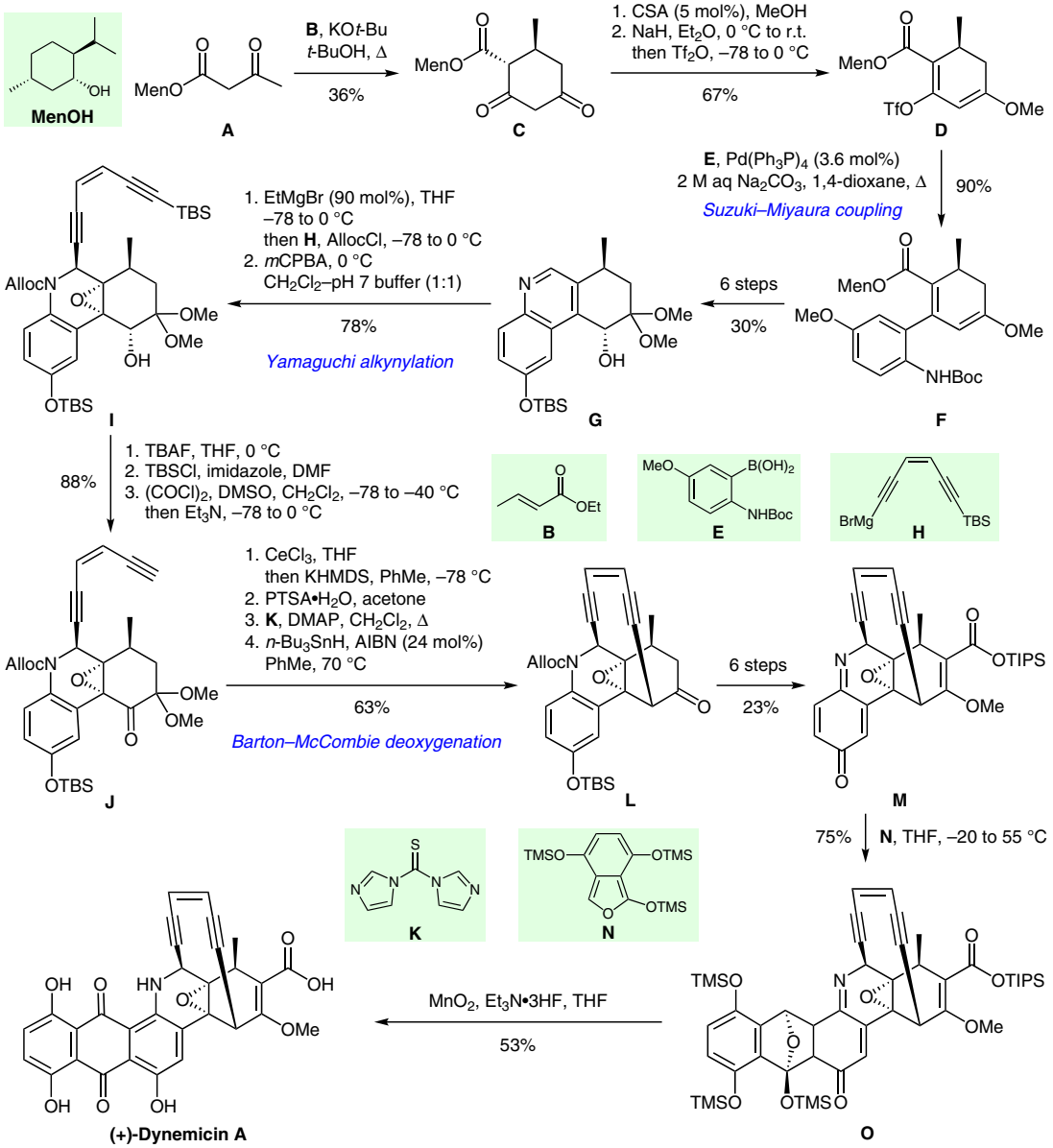
A. G. MYERS*, N. J. TOM, M. E. FRALEY, S. B. COHEN, D. J. MADAR (CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, USA)

A Convergent Synthetic Route to (+)-Dynemicin A and Analogs of Wide Structural Variability

J. Am. Chem. Soc. **1997**, *119*, 6072–6094, DOI: 10.1021/ja9703741.

Total Synthesis of (+)-Dynemicin A



Significance: In 1997, Myers and co-workers reported the first total synthesis of (+)-dynemicin A. The potent antitumor antibiotic features a strained 10 membered enediyne motive. Its unique structural characteristics and high reactivity have attracted the interest of the synthetic community since its isolation in the 1980s.

Comment: Ester **F** was accessed by cross-coupling enol triflate **D** and arylboronic acid **E**. The enediyne motive was introduced via Yamaguchi-type acetylide addition onto quinoline **G**. The Diels–Alder reaction of quinone imine **M** with isobenzofuran **N** yielded the natural product after deprotection.

SYNFACTS Contributors: Erick M. Carreira, Henry Lindner
Synfacts 2022, 18(04), 0354 Published online: 18.03.2022
DOI: 10.1055/s-0041-1737932; **Reg-No.:** C01422SF