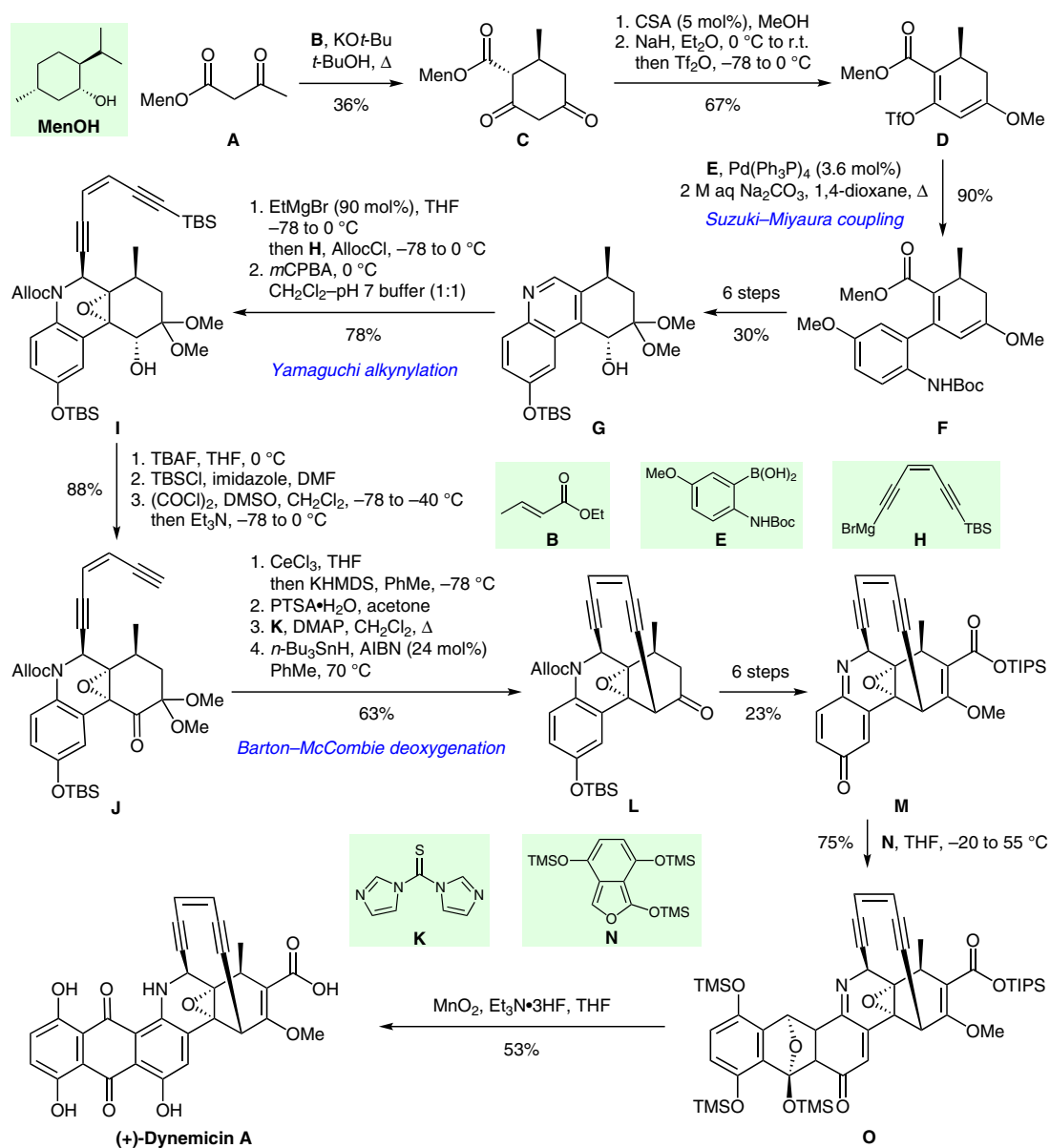


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A Convergent Synthetic Route to (+)-Dynamycin A and Analogs of Wide Structural Variability

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Total Synthesis of (+)-Dynamycin A



Significance: In 1997, Myers and co-workers reported the first total synthesis of (+)-dynamycin 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.

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