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Biogenetically Inspired Synthesis of Indole Alkaloids

$$\begin{array}{c} A \text{ steps} \\ A \text{ in } A \text{ steps} \\ A \text{ s$$

Significance: Oguri and co-workers report elegant and concise syntheses of several types of indole alkaloids. Their biogenetically inspired strategy relies on the use of a dihydropyridine intermediate that enables access to five skeletally distinct scaffolds.

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Comment: The key and multipotent intermediate **D** was prepared from **C** by copper-catalyzed dihydropyridine formation. By judicious choice of conditions, **D** could be converted into three structurally distinct natural products in very few steps.

Category

Synthesis of Natural Products and Potential Drugs

Key words

iboga alkaloids

aspidosperma alkaloids

andranginine alkaloids

indole alkaloids

biomimetic synthesis

[4+2] cyclization

dihydropyridines

