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Total Synthesis of Kinamycins C, F, and J

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## Synthesis of Kinamycin C

Significance: Kinamycins are Streptomyces metabolites that contain a rare diazofluorene moiety. Kinamycin C possesses strong inhibiting activity against Gram-positive bacteria along with some antitumor activity. A convergent synthesis is presented in which both key building blocks A and B can be synthesized on a multigram scale.

Comment: Addition of catalytic amounts of Cul markedly improved the yield in the Ullmann coupling of A and B. A substoichiometric amount of triazolium salt D (T. Rovis and co-workers J. Org. Chem. 2005, 70, 5725) mediated a Stetter-type transformation to construct the cyclopentanone ring. TBS-protected kinamycin C can be easily transformed into kinamycins F and J.

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Category

**Synthesis of Natural Products and Potential Drugs** 

**Key words** 

**Ullmann reaction** allylic oxidation **Stetter reaction** 



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