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Total Synthesis of (+)-Pinnatoxin A

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Synthesis of (+)-Pinnatoxin A

Significance: (+)-Pinnatoxin A is a neurotoxin found in the *Pinna* shellfish species, presumably acting as a calcium-channel activator. The present study concentrates on a new approach towards ring G using an Ireland–Claisen rearrangement to establish the C5 and C31 stereogenic centers.

Comment: A was synthesized from D-ribose. Deprotonation of E using chiral amide F followed by treatment with TMSCl furnished silylketene acetal G which underwent stereoselective [3,3]-sigmatropic rearrangement upon warming to room temperature.

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