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Catalyst-Controlled Transannular Polyketide Cyclization Cascades: Selective Folding of Macrocyclic Polyketides

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The biomimetic synthesis of aromatic polyketides from macrocyclic substrates by means of catalyst-controlled transannular cyclization cascades is described. The macrocyclic substrates, which feature increased stability and fewer conformational states, were thereby transformed into several distinct polyketide scaffolds. The catalyst-controlled transannular cyclizations selectively led to aromatic polyketides with a defined folding and oxygenation pattern, thus emulating β -keto-processing steps of polyketide biosynthesis.

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