Total Synthesis of (+)-Roxaticin

Significance: The oxo-polyene macrolide (+)-roxaticin has been a popular target for the synthetic community. This synthesis requires only 20 steps and is particularly efficient due to a lack of chiral auxiliary controlled reactions and redox manipulations.

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Comment: The key step in the synthesis is a C–C bond forming transfer hydrogenation (e.g. **A** → **C**), which is used to form seven C–C bonds.

Category

Synthesis of Natural Products and Potential Drugs

Key words

(+)-roxaticin

cross-metathesis

C–C bond forming transfer hydrogenation

SYNFACT
of the month