

## Octacidomycine, IV: Neue Totalsynthese von *rac*-Octacidomycin und strukturverwandten Oligocarbonsäuren

Octacidomycins, IV: A New Total Synthesis of *rac*-Octacidomycin and Structurally Related Oligocarboxylic Acids

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Following a new strategy, an improved total synthesis of the unique antibiotic octacidomycin (**1**) and of structurally related oligocarboxylic acids was developed (Scheme 1,2). Starting from **3** and the tetraethylester of 1,17-dibromo-6,6,12,12-heptadecane-tetracarboxylic acid (**6**) as a key compound, systematical fragment condensations lead to the nonatriacontane-pentadecacarboxylic acid **11** and hence to the 1,3,9,15,21,27,33,39-nonatriacontane-octacarboxylic acid **1**. The synthetic pathway can easily be modified and generally be applied for the synthesis of a broad variety of hitherto unknown oligocarboxylic acids or their esters, respectively, and even of cyclic analogues (Scheme 2).

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