

Chiral 2 + 3 keto-enamine pseudocyclophanes derived from 1,3,5-triformylphloroglucinol.

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Streszczenie

The reactions of 1,3,5-triformylphloroglucinol with (1*R*,2*R*)-1,2-diaminocyclohexane, (1*R*,2*R*)-1,2-diphenylethylenediamine, or (*R*)-2,2'-diamino-1,1'-binaphthyl result in the formation of enantiopure [2 + 3] keto-enamine condensation products, in contrast to analogous reactions of 1,3,5-triformylbenzene, where [4 + 6] Schiff base cages are formed. The X-ray crystal structure of the diaminocyclohexane 2 + 3 derivative as well as modeled structures of other compounds of this type show cyclophane-like molecules with close contact between the phloroglucinol rings. Density Functional Theory (DFT) calculations confirm that there is a sizable π - π interaction between these rings influencing the conformation of these molecules.

Adres publiczny

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<https://www.acs.org/content/acs/en.html>