

Toward coordination polymers based on fine-tunable group 13 organometallic phthalates.

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Streszczenie

A family of group 13 organometallic macrocyclic phthalates $[(MMe_2)_2(\mu-O_2C)_2-1,2-C_6H_4]_2$ (where M = Al (1), Ga (2), In (3)) is prepared, and the reactivity of these homologous carboxylates toward various monodentate Lewis bases is investigated. The studies provide the first structurally characterized methylindium $\{[(Me_2In)(\mu-O_2C)_2-1,2-C_6H_4]\{Me_2In(THF)\}}_n$ (4) and methylaluminum $\{[(Me_2Al)(\mu-O_2C)_2-1,2-C_6H_4]\{Me_2Al(py-Me)\}}_n$ (5) 1D coordination polymers stabilized by dicarboxylate ligands as a result of disruption of the parent tetranuclear macrocyclic structural motifs in 3 and 1 by the incoming donor ligands. The molecular and crystal structures of the reported compounds are examined by spectroscopic studies and single-crystal X-ray diffraction.

Adres publiczny

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Strona internetowa wydawcy

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