

Interaction of Pillar[5] – and Pillar[6]arenes with NO₂/N₂O₄ and NO⁺ donors

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Abstract

The interaction of pillar[5]- and pillar[6]arenes with gaseous NO₂/N₂O₄, and with alkyl nitrites in the presence of a Lewis acids in organic solvents has been studied. Experimental data support the reversible formation of inclusion complexes between pillararenes and nitrosonium cations. Upon the prolonged standing on the reaction mixture the degradation of pillararene macrocycles has occurred as a result of nitration/pillararene macrocycle degradation products.