

An Aluminium-Oxide-Isopropoxide Cluster with Peripheral Ammonia Ligands

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The reaction of toluene solutions of aluminium isopropoxide with ammonia gas, without exclusion of moisture, affords high yields of a decanuclear aluminium-oxide-isopropoxide-ammonia cluster of the composition $[\text{Al}_{10}\text{O}_6(\text{OiPr})_{18}(\text{NH}_3)_8]$. The compact centrosymmetric cluster units feature tetra-, penta- and hexa-coordinate aluminium atoms, tri- and tetra-coordinate interstitial oxygen atoms, and bridging and terminal isopropoxide groups. The ammonia molecules occupy peripheral positions at two types of aluminium atoms.

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