

# Bis-Imide Derivatives of the Heterometallic Alkoxide $\text{Li}_4\text{Ti}_4\text{O}_4(\text{O}^i\text{Pr})_{12}$

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*Dedicated to Prof. Helgard G. Raubenheimer on the  
occasion of his 65<sup>th</sup> birthday*

The imide derivatives  $\text{Li}_4\text{Ti}_4\text{O}_2(\text{NR})_2(\text{O}^i\text{Pr})_{12}$  ( $\text{R} = \text{CH}_2\text{C}_6\text{H}_5$ ,  $\text{C}_6\text{H}_{11}$ ,  $\text{C}_4\text{H}_9$ ) were obtained either by reaction of the amine adduct  $\text{Ti}_2(\text{O}^i\text{Pr})_8(\text{H}_2\text{NR})_2$  with lithium di-*iso*-propylamide or butyllithium, or when the primary amine was first reacted with the base and then with  $\text{Ti}(\text{O}^i\text{Pr})_4$ . The structures of the imide derivatives are the same as that of  $\text{Li}_4\text{Ti}_4\text{O}_4(\text{O}^i\text{Pr})_{12}$  ( $= \text{Li}_4\text{Ti}_4(\mu_2\text{-O})_2(\mu_5\text{-O})_2(\mu_2\text{-O}^i\text{Pr})_4(\mu_3\text{-O}^i\text{Pr})_4(\text{O}^i\text{Pr})_4$ ) with the two  $\mu_2$ -oxo groups replaced by two  $\mu_2$ -NR groups.

*Key words:* Titanium Alkoxide Derivatives, Lithium  
Alkoxide Derivatives, Imide Ligands