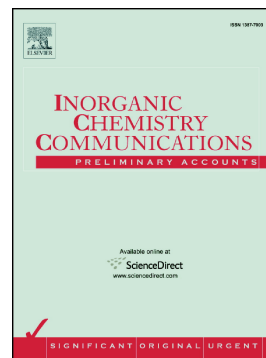


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# Titanium(IV) Complexes Supported by a Dianionic Acenaphthenediimine Ligand: X-Ray and Spectroscopic Studies of the Metal Coordination Sphere

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## Abstract

The new titanium(IV) coordinative compound (dpp-bian)TiCl<sub>2</sub> (**2**) was obtained by metathesis of the disodium salt (dpp-bian)Na<sub>2</sub> (**1**) (dpp-bian = 1,2-bis[(2,6-diisopropylphenyl)imino]acenaphthene) with TiCl<sub>4</sub>. It was shown that the chlorido ligands can be exchanged for chelating dpp-bian ligands, or *tert*-butoxy groups, with the formation of (dpp-bian)<sub>2</sub>Ti (**3**) and (dpp-bian)Ti(O<sup>*t*</sup>Bu)<sub>2</sub> (**4**), respectively. Complexes **2–4** were isolated and fully characterized. It was demonstrated that dpp-bian is in the reduced dianionic form and acts as a  $\sigma^2\pi$ -donor ligand.

**Keywords:** coordination compounds; early-transition metals; non-innocent ligands; acenaphthene-1,2-diimines; X-ray diffraction; NMR spectroscopy.

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