Organometallic Compounds of the Lanthanides 182 [1]. Calcium and Neodymium Complexes Containing the dpp-BIAN Ligand System: Synthesis and Molecular Structure of $[(dpp\text{-}BIAN)CaI(THF)_2]_2$ and $[(dpp\text{-}BIAN)NdCl(THF)_2]_2$

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Oxydation of $(dpp\text{-}BIAN)Ca(THF)_4$ with 0.5 equiv. of I_2 in THF yields $[(dpp\text{-}BIAN)CaI(THF)_2]_2$ (**1**). A corresponding neodymium compound $[(dpp\text{-}BIAN)NdCl(THF)_2]_2$ (**2**) has been obtained by reaction of $(dpp\text{-}BIAN)Na_2$ with $NdCl_3$ in THF. The X-ray single crystal structure analyses show **1** and **2** to be isostructural dimers containing octahedrally coordinated metal atoms bridged by the respective halides. The chelating dpp-BIAN ligand acts as a radical anion in the Ca^{2+} complex **1** and as a dianion in the Nd^{3+} complex **2**, respectively.

Key words: Neodymium, Calcium, Diimine Ligands, X-Ray Structure