New Ladder-Type Intermediates in the Anionic Cyclization of *N*-Benzyl Phosphinamides

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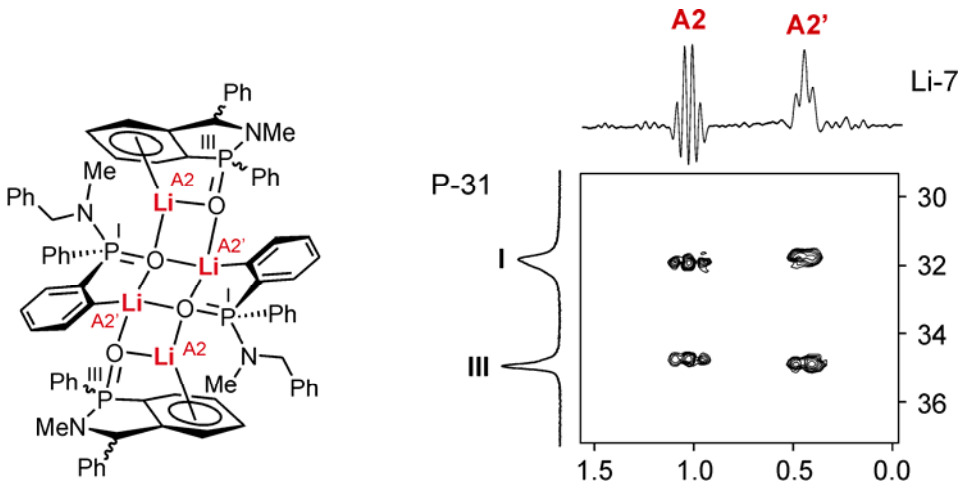
During the last years we have shown that the phosphinamide moiety could act as an effective *ortho* and *benzylic* lithiation directing group providing substituted phosphorus-based molecules in high yields and excellent stereoselectivities.[1] We report herein the structure of new intermediates of unprecedented structure based on ladder-type mixed aggregates. As far as we are aware these are the firsts examples of hetero bridged dimers connected through $(Li_2O_2)_2$ cores. These unique structures represent new reactive species that may show distinct behavior toward electrophiles. The study is based on multinuclear magnetic resonance measurements showing temperature, solvent, and concentration dependence.

The electrophilic quench of these reactive species provide compounds that can be further transformed in *gamma*-aminophosphinic acids and esters, α-, β-, γ-aminoacids, 1,2-aminoalcohols, Diels-Alder adducts, and selective epoxidized products, among others.



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