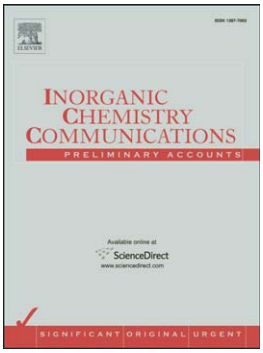

Bidentate pyrrolyl lithium complexes: Synthesis, crystal structure and catalytic activity for the cyclotrimerization of isocyanates

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PII: S1387-7003(13)00147-0
DOI: doi: 10.1016/j.inoche.2013.04.010
Reference: INOCHE 5042

To appear in: *Inorganic Chemistry Communications*

Received date: 12 January 2013
Accepted date: 8 April 2013

Please cite this article as: Zhiqiang Guo, Song Wang, Hongbo Tong, Jianbin Chao, Xuehong Wei, Bidentate pyrrolyl lithium complexes: Synthesis, crystal structure and catalytic activity for the cyclotrimerization of isocyanates, *Inorganic Chemistry Communications* (2013), doi: 10.1016/j.inoche.2013.04.010

Bidentate pyrrolyl lithium complexes: synthesis, crystal structure and catalytic activity for the cyclotrimerization of isocyanates

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Abstract: Three bidentate pyrrolyl lithium complexes were synthesized and their application for the cyclotrimerization of isocyanate to corresponding isocyanurate has been investigated and show high catalytic activities. All lithium complexes were characterized by NMR spectroscopy, elemental analysis and X-ray diffraction analysis.

Keywords: Lithium complex / Pyrrolyl / Cyclotrimerization / Isocyanate / Catalysis

About the organometallic compounds, lithium complexes have been not only deeply studied in academic research but also applied in industry because of their widely availabilities. A large numbers of organolithium complexes have been synthesized and structurally characterized. Of course, those of anionic N-centred species (lithium amides) are no exception [1-5]. For example, the pyrrolyl ligands can bind to a metal center by η^1- or η^5- bridging coordination modes [6-8]. Substituents on the pyrrolyl ring play a key role in influencing the binding mode of the

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