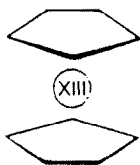


XIII International Conference
on Organometallic Chemistry



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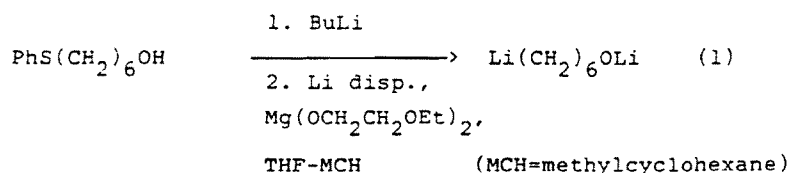
Torino, September 4-9, 1988

METAL ALKOXIDE MODIFIED ORGANOMETALLIC REACTIONS. DIRECT SYNTHESIS
OF LITHIOOXYALKYL- AND ARYLITHIUM COMPOUNDS

C.G.Screttas, I.D.Kostas and C.S.Salteris, Institute of Organic
Chemistry The National Hellenic Research Foundation Athens 116 35
Greece

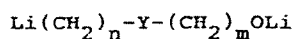
Attempts to synthesize $\text{LiO}(\text{CH}_2)_6\text{Li}$ according to the conventional method from $\text{HO}(\text{CH}_2)_6\text{Br}$ led to extensive Wurtz coupling. Similar results were obtained by employing lithium naphthalene radical anion in place of lithium metal.

6-Lithiooxyhexyllithium was prepared in fair yields according to eq. (1).

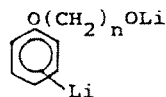


The organometallic product was characterized by carbonation and by conversion to $\text{Hg}(\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH})_2$. The function of the alkoxide is to stabilize the organometallic reagent with respect to THF-cleaving reaction, so that solutions of the reagent can be stored at room temperature for 48 hours or longer.

The method has been extended to the preparation of the lithiooxy-organolithiums of the general types 1 and 2.



1

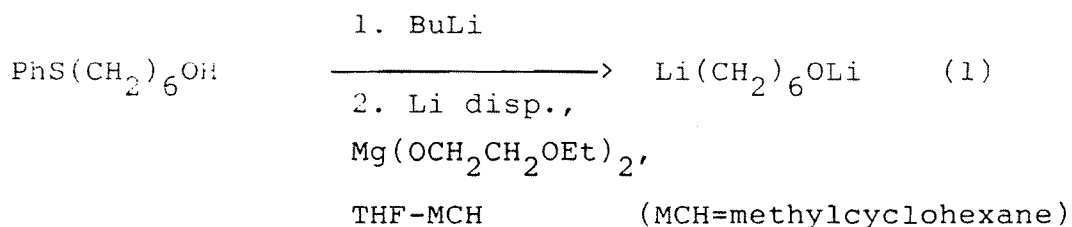


2

METAL ALKOXIDE MODIFIED ORGANOMETALLIC REACTIONS. DIRECT SYNTHESIS
OF LITHIOXYALKYL- AND ARYLITHIUM COMPOUNDS

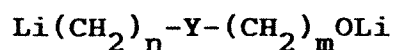
C.G.Screttas, I.D.Kostas and C.S.Salteris, Institute of Organic
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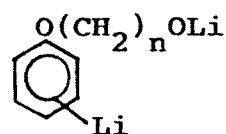


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1



2