Lithium and Aluminum Anthracenyldiimidosulfimates

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9,10-Dibromo-anthracene was lithiated once or twice, and the products were reacted with different sulfurdimidides. The reactions yielded [(THF)$_2$Li(N$^t$Bu)$_2$SAnBr] (1), [(Et$_2$O)(LiBr)Li(N$^t$Bu)$_2$-SAnBr)$_2$ (2), [Me$_2$Al(N$^t$Bu)$_2$SAnBr] (3), [((THF)$_2$Li(NR)$_2$S)$_2$An] (4: R = $^t$Bu; 5: R = SiMe$_3$) and [[Me$_2$Al(NSiMe$_3$)$_2$S]$_2$An] (6). All products were fully characterized by X-ray structure analysis, elemental analysis, NMR and mass spectroscopy. From the solution NMR spectra it is evident that the rotation about the S–C bond is hindered even at r. t. leaving all protons of the anthracene framework non-equivalent.

Key words: Sulfur, Imide, Anthracene, Lithium, Aluminum