

Alkali metal magnesiates: reagents for regioselective double metalations

When a sodium (or potassium) reagent is combined with a magnesium one to form a single organometallic bimetallic entity, a special chemistry which cannot be replicated by either individual metal reagent can be obtained. In terms of deprotonative metalation, the mixed alkyl-amido sodium magnesium complex ' $\text{Na}_4\text{Mg}_2(\text{TMP})_6\text{nBu}_2$ ', where TMP is 2,2,6,6-tetramethylpiperidide, has been shown to be capable of regioselectively deprotonating simple mono-substituted feedstock arenes, some at 2,5 positions and others at 3,5. Here this work is extended to multi-aryl species and heterocycles.