

## **Mild alkane functionalisation leading to ethers: Oxidative alkoxylation of cyclohexane with the dibromobis(phosphine)palladium(II)-sodium alkoxide system**

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### **Abstract**

Dibromobis(phosphine)palladium(II) complexes,  $\text{PdBr}_2(\text{L})_2$  [ $\text{L} = \text{PPh}_3, \text{P}(p\text{-Tol})_3$ ], react with cyclohexane and an alcoholic solution of sodium alkoxide,  $\text{NaOR}$  ( $\text{R} = \text{Me}, \text{Et}, \text{Pri}$ ), at 30-60°C affording the corresponding alkyl cyclohex-1-enyl ethers,  $\text{ROC}_6\text{H}_9$ , in 30-140% yield on palladium both under argon and under air; benzene is inert under the reaction conditions, sodium tert-butoxide does not enter the hydrocarbon alkoxylation.

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