

ENANTIOSELECTIVE N-ALKYLATION OF 3-CYANOINDOLE

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The indole core is present in a variety of biologically active natural products and pharmaceutical compounds [1],[2]. The N1 position of the indole framework has been used for the enantioselective *N*-alkylation reactions [3],[4].

The aim of this study is to find the conditions for the enantioselective aza-Michael reaction between indole derivative **1** and unsaturated ketone **2** (Fig. 1). The nitrogen atom of indole could be activated by the phase-transfer catalyst **3** in presence of base. This approach provides *N*-alkylated indoles **4** with good conversion (up to 82%) and moderate enantioselectivities (up to 42%).

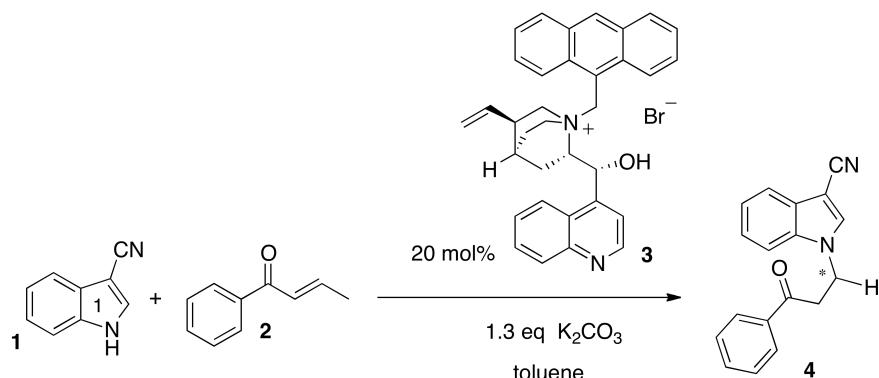


Fig. 1 Enantioselectivne *N*-alkylation of 3-cyanoindole

References

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