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Methyl 2-Benzyl-3-phenyl-2-(phenylsulfonyl)propanoate

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$$\begin{array}{c|c}
\text{MeO}_2\text{C} \\
\text{PhO}_2\text{S}
\end{array}
\qquad
\begin{array}{c|c}
\text{tBuOK/PhCH}_2\text{CI} \\
\text{TBAB}
\end{array}
\qquad
\begin{array}{c|c}
\text{MeO}_2\text{C} \\
\text{PhO}_2\text{S}
\end{array}$$

$$\begin{array}{c|c}
\text{R} \\
\text{PhO}_2\text{S}
\end{array}$$

$$\begin{array}{c|c}
\text{2} & \text{R = PhCH}_2
\end{array}$$

The product **2** was prepared from methyl phenylsulfonyl acetate *in situ* by the solid-liquid PTC conditions without solvent [1-2]. To ester **1** (0.535 g, 2.5 mmol), was added benzyl chloride (0.791 g, 6.25 mmol), ^tBuOK (0.701 g, 6.25 mmol) and 10 % of TBAB (tetrabutylammonium bromide) phase transfer catalyst (80 mg, 0.25 mmol). The reaction was carried out under ambient temperature with magnetic agitation during 1 min. An approximate temperature of 95°C was measured at the end of the reaction. The mixture was allowed to cool to ambient temperature. After dilution with ethyl acetate (30 ml) and subsequent filtration through Florisil TM, the organic product was analysed by GC (using an internal standard) and purified by chromatography on silica gel (pentane: ethyl acetate, 95 : 5), yield: 88 % of isolated product **2**.

¹H NMR (CDCl₃): 3.48 (s, 4H); 3.68 (s, 3H); 7.10-7.23 (m, 10H); 7.48-7.82 (m, 5H).

¹³C NMR (CDCl₃): 165 (ester).

IR (Nujol): 1740 (CO₂); 1310 and 1140 cm⁻¹ (SO₂).

MS (IC-NH₃, m/z): $412 (M^+ + 18) / 29.3 \%$; $272 (M^+ - PhSO_2 + 18) / 100\%$.

References

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Sample Availability: Available from the authors.

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1 von 1 05.05.2009 11:53