

Supplementary Material (ESI) for Organic & Biomolecular Chemistry

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# Direct use of formamides as amino group sources via C–N bond cleavage: A catalytic oxidative synthesis of $\alpha$ -ketoamides from acetophenones and formamides under metal-free conditions

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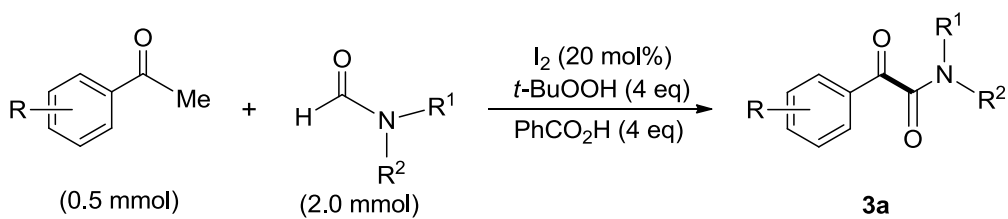
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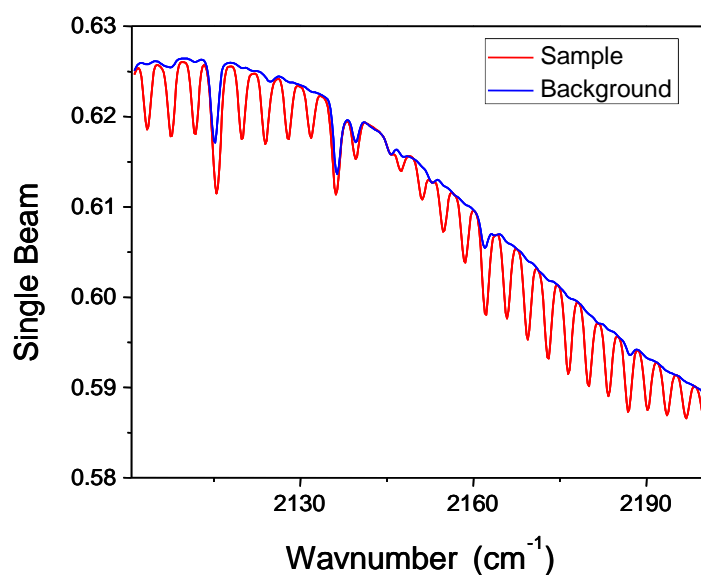
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## 1. Effect of TEMPO on the reaction (Table S1)



Addition of TEMPO	<b>3a</b> , Isolated yield (%)
0%	71%
10 mol%	68%
20 mol%	59%
50 mol%	43%
1 eq (0.5mmol)	19%
2 eq (1.0mmol)	trace
3 eq (2.0mmol)	0

## 2. FT-IR analysis of the resulting gas (Figure S1)



**Figure S1:** FT-IR analysis of the resulting gas during the reaction by a Bruker Tensor 27 FT-IR instrument (CO:  $1845.71 \pm 5.55$  ppm)

### 3. $^1\text{H}$ and $^{13}\text{C}$ NMR spectra of the products

