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## Facile One-pot Synthesis of $\alpha$ -Formyloxy *N*-Phenylacetamides, *N*-(Naphthalenyl)acetamide and *N*-(Quinolin-8-yl)acetamide

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### Abstract:

A new one-pot synthesis of  $\alpha$ -formyloxy *N*-phenylacetamides was successfully developed by reacting  $\alpha$ -halo *N*-phenylacetamides with formamide in presence of PBr<sub>3</sub>. The desired  $\alpha$ -formyloxy *N*-phenylacetamides were obtained in good yields and the reaction was applicable to  $\alpha$ -chloro *N*-(naphthalenyl)acetamide and *N*-(quinolin-8-yl)acetamide. Based on the plausible mechanism,  $\alpha$ -chloro acetamide starting materials seemed to be active by coupling agent PBr<sub>3</sub> and favorable for conversion of formylation reaction with formamide.

