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Rapid formation of 2-lithio-1-(triphenylmethyl)imidazole and substitution reactions in flow†

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Abstract

The functionalisation of imidazoles is a necessary step in the formation of many active pharmaceutical intermediates. Herein, we report a flow chemistry approach for the rapid and efficient formation of 2-lithio-1-(triphenylmethyl)imidazole at ambient temperature and its reaction with a range of electrophiles, achieving modest to high yields (40–94%) in short reaction times (<1 min). The method is amenable to the scale-up of this highly reactive lithio-imidazole intermediate.