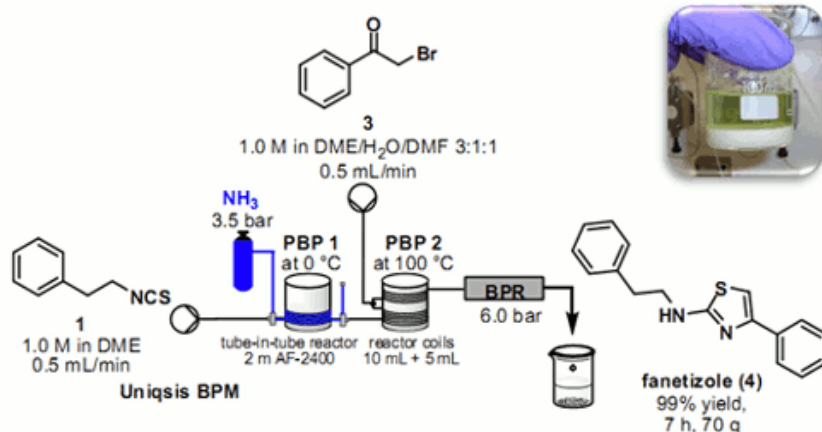


## Publication 29: Scaled-up Continuous Flow Synthesis with Gases - Fanetizole Synthesis with Ammonia



Researchers at Cambridge have shown how it is possible to calibrate a 'tube-in-tube' reactor containing ammonia gas using a simple in-line colourimetric titration technique.

This information was then used to deliver an ammonia solution of stoichiometrically to effect the telescoped 2 stage synthesis of the anti-inflammatory agent Fanetizole.

The automated continuous flow synthesiser was able to produce drug substance at a rate of approximately 10 g per hour, isolating the product by direct precipitation from the outflow reaction stream.

[J. C Pastre, D. L. Browne, M. O'Brien, S. V. Ley, Org. Proc. Res. Dev., 2013;](#)  
[DOI: 10.1021/op400152r](#)

