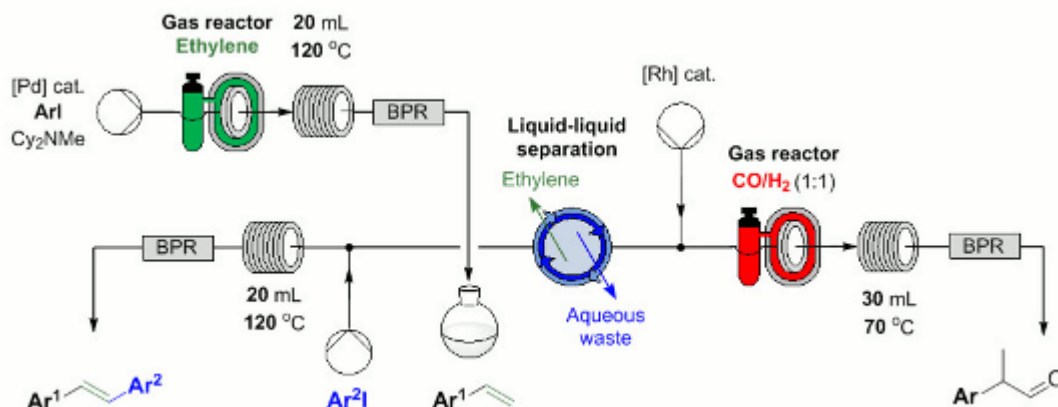


Publication 28: Flow Syntheses of Styrenes, Unsymmetrical Stilbenes & Branched Aldehydes



A palladium mediated flow-through synthesis of styrenes which consumed ethylene delivered via a 'tube-in-tube' reactor was developed.

This styrene could then be utilised in a second Heck cross-coupling to afford unsymmetrical stilbenes.

Alternatively, following in-line removal of an inhibitory contaminant the styrene synthesis could be telescope with a rhodium mediated hydroformylation using syngas introduced through another 'tube-in-tube' reactor to afford branched aldehyde products directly from aryl halides in a single process.

[S.L. Bourne, M. O'Brien, S. Kasinathan, P. Koos, P. Tolstoy, D.X. Hu, R.W. Bates, B. Martin, B. Schenkel, S.V. Ley, ChemCatChem., 2013, 5, 159-172.](#)