

SPECIAL FEATURE SECTION: CONTINUOUS PROCESSES

Editorial

Continuous Processes

When working on the synthesis of complex molecules, where starting materials are expensive and may be in short supply, chemists will always use a synthesis comprising batch or semibatch processes in the laboratory. As processes are scaled up, and particularly when chemical engineers become involved, development work may indicate that a continuous process for one or more steps in the synthesis may be more appropriate, for example, when unstable intermediates are involved.

One of the hindrances to the examination of continuous processes in the laboratory has, in the past, been the dearth of off-the-shelf continuous reactors. The fact that chemists had to set up their own continuous process equipment put off many from going down this pathway. However, as new equipment, particularly microreactors, has become available not only in stainless steel and Hastelloy but also in glass, more and more chemists are taking the plunge and looking at the advantages of continuous processing.

It was for this reason that this special issue has arisen some 7 years after our first foray into this field. This special issue contains 15 papers on a variety of topics which attest to the current interest in the subject in the fine chemicals and pharmaceutical industries. It is a topic on which I have given many lectures this year, and a workshop given at Informex 2008 had standing room only, with other potential participants keen to get in.

A number of companies are looking at the economic and throughput advantages for second-generation processes for pharma intermediates, and this has spawned one or two new companies specialising in developing continuous processes for clients, both at laboratory scale and on-tonnage scale. This is an expanding area, and my guess is that it will not be too long before a third special issue on continuous processes appears in *Organic Process Research & Development*.

My thanks go to all authors who submitted papers for this special issue and to the reviewers who helped, by constructive criticism, to improve the quality of the resulting manuscripts.

Trevor Laird
Editor

OP800183C