

Editorial

Safety of chemical processes should always be of prime concern, but the chemical literature is often deficient in this respect. I was reading the experimental procedure for an ozonolysis experiment (from a well-known publication) the other day and noticed that after ozonolysis and dimethyl sulphide reduction of the intermediate hydroperoxy derivatives, the reaction mixture was stripped to dryness. There was no test for peroxides before evaporation of the solvent so that if any peroxy compounds had been present they may have constituted an explosion risk if concentrated.

In the “green” chemical literature, we often read of the environmental advantages of carrying out reactions without any solvent. I have yet to see mentioned the hazards of carrying out exothermic processes in batch mode without solvent, nor the positive properties of a solvent as a heat sink, especially when reactions are run at reflux. There can be some “woolly” thinking in the green chemistry community. For example, I read of the environmental advantages in papers devoted to using water as a solvent for organic reactions. When I look at the experimental, however, I find that the product has been isolated by extraction with methylene chloride.

It is clear we need to educate chemists at an early stage—preferably at university—in “real” chemistry, where environmental and safety issues are taught from a practical and realistic viewpoint. Hopefully, this journal can set an example by providing case studies in process chemistry and engineering which can be used by academics in their teaching of chemistry.

In the last issue of 2002, we will be focusing on the safety of chemical processes, thermal hazards, runaway (or potential runaway) reactions, calorimetry, and other techniques to assess the safety of processes, on-line monitoring techniques, and we are looking for case studies which mention incidents, near misses, and safety hazards which have occurred in your laboratories but may not have been reported in the open literature. This is a call for papers for this themed issue, and potential authors should contact Claire Davey or myself (Claire@scientificupdate.co.uk) for further details. It helps if a short abstract or summary of the proposed paper can be prepared. Please help to make this issue memorable—papers can be short reviews, notes, full papers, technology reports, short communications, etc.).

In 2002 you will see some new names on the Editorial Advisory Board (EAB). I would like to thank women chemists who responded to an earlier editorial asking for volunteers for the EAB.

Trevor Laird

Editor

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