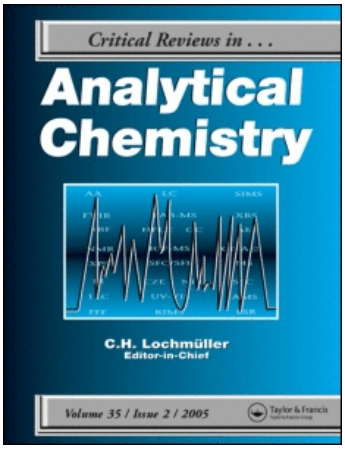

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Letter from the Editor

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LETTER FROM THE EDITOR

There is an interesting challenge brewing for the chemical measurement community in the form of support to what is called 'Green Chemistry'. An article in an earlier volume by Ed. Board member Darrel Wilder "New Directions in Industrial Environmental Analytical Chemistry: Beyond Compliance Testing" is an example of how measurement and the goals of Green Chemistry can be tied together. This issue has a paper on several aspects of fire chemistry that the Journal feels is also a related topic.

The problem with Green Chemistry is that it has no clear, singular definition. We have been discussing that on the Baltic Environmental Chemistry Internet maillist recently. The concern is that while 'end-of-the-pipe' solutions are not the final goal of Green Chem., they cannot be ignored. Burning waste polyethylene to recover the heat content from it as a fuel may not be as good a sustainable environment solution as finding a way to recycle the material avoiding crystallization. However, it is a 'greener' solution than burying it in land or at sea!

Mudis Salkauskas of Lithuania offered these observations:

"Currently, Chemistry is to supposed be responsible for many environmental disasters and the image of Chemistry is associated with the production of chemicals, which are themselves deemed as alien to human nature and Life in general.

"On the basis of such assumptions one can try to discuss the meaning of a new concept named GREEN CHEMISTRY. In Western culture GREEN suggests "open way", "Carte blanch" and suggests healthy, natural surroundings of a wild, unspoiled nature. Therefore, if GREEN is the color given to all friendly to Nature human activities — GREEN CHEMISTRY means 'Friendly for Nature Chemistry'.

"There is a second aspect of the concept's analysis — CHEMISTRY is not so simple and unambiguous. CHEMISTRY is science, technology, industry, and something curious, magic and evil all at once. CHEMISTRY is beneficial for modern society as well.'

A real concern is the economic impact of mandating green chemistry process changes in a vacuum of science to achieve such changes. Certainly, the adoption of supercritical fluid CO_2 as a substitute for chlorinated solvents in clothes dry-cleaning is a fine example of Green Chemistry changes in a process. Extrapolating such an achievement to the elimination of all chlorinated solvent use in process chemistry and replacement with SCF carbon dioxide is likely not to happen until a lot more science is done if ever.

What does this have to do with Analytical Chemistry? At the bench level, it can mean using SCFE and superheated water as replacements for organic extractants *where that can be done.* The call is already out to replace such chemicals in compendial methods in the various Pharmacopoeia but the effort needed to develop, test and >validate< such changes is overlooked in some of the enthusiasm. The Journal would be happy to consider reports of the successful entry of Green Chemistry concepts into measurements areas or applications. This seems like a perfectly reasonable topic for 'position' papers promoting alternative methods of assay. Because failures can be useful study cases, we will consider examples of such events as well. Suggestions or comments can be sent to the Editor from the WWW site http://www.crcpress.com/jour/crac/crac.htm.

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