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Foreword

The 8th Symposium on the Chemistry and Fate of Modern Pesticides was held at The Royal Veterinary and Agricultural University in Copenhagen from 21 till 24 August 2001. The symposium was opened by the Danish Minister of Food Agriculture and Fisheries, Ritt Bjerregaard. About 150 scientists from 20 different countries, mainly from Europe and the USA, participated. The Minister pointed out the risk of the use of pesticides and the Danish intentions of reducing this use as much as possible as we are not fully aware of its consequences. In Denmark we have focused very much on the risk of water pollution, and we have been forced to close many wells to follow the European Union (EU) limit of 0.1 µg/L in drinking water.

This special issue of *Journal of Chromatography A* contains papers illustrating the importance and technical problems in the analysis of traces of pesticides and their metabolites in environmental samples, including in water.

The symposium programme was divided in 7 platform sessions and a poster session with about 50 posters. At the end of the symposium, there was a panel debate on Perspectives for research to the fate of pesticides. “What has been in focus at this symposium?” introduced and chaired by Marie-Claire Hennion. The following aspects were pointed out:

In the *Modelling session*, it was clear that models exist, but several problems make the modelling very difficult, e.g. effects of the variability of data, lack of data and the need for validation of the data.

Questions raised in the section on *Bound residues*

were the bioavailability of the bound residues, the competition in the adsorption between pesticides and other compounds in soil and the possibility of bound residues to be leached out in fractured soils.

The discussions about *Laboratory versus field experiments* demonstrated that we still lack sufficient knowledge about the dynamics of pesticide degradation in soil, where laboratory experiments are mostly static against dynamic systems under field conditions. The sampling techniques are important, and there is a need to develop dynamic laboratory studies.

In the session *Surface water*, the importance to identify sources, transport and sinks in the pesticide pollution in surface water was emphasized. Field studies are needed to clear up the importance of input from fields and to assess what influences this input. Further transformation and fluxes need to be further elucidated.

For the *Ground water* session, the degradation rate of different pesticides and the influence of redox reactions and the reduced microbial activity were important. Also how vulnerable is ground water to pesticide contamination, and how do management practises influence the risk of pollution? Due to the slow degradation, it is also important to test the ground water for pesticides which are no longer used. In the debate, the different residue limits in drinking water in the EU and the USA were discussed, and the importance of other sources besides field treatment for ground water was pointed out.

It appeared from the *Analysis* section, that LC–MS is now a routine technique and LC–MS–MS is gaining increasing importance. When making monitoring programmes, quality assurance is important

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and matrix composition may have great influence. Metabolites are important in the monitoring programmes and new metabolites are constantly being identified.

The symposium was arranged in collaboration with IAEAC, and members of the national and international committees, respectively, were: Inge Sindbjerg Fomsgaard, Sonja Graugaard, Hans Christian Bruun Hansen, Bo Lindhardt and Betty Bügel Mogensen; and Damia Barcelo, Silvana Galassi, Jana Hajslova, Marie-Claire Hennion (co-chairman), Jim

Lawrence, Bob Lerch, E. Mike Thurman and Piet van Zoonen (co-chairman).

As chairman of the symposium, it was great to feel the enthusiastic participation, and we now look forward to the 9th Symposium in the series, to be held in Colorado in the USA in August 2003. Bob Lerch will be chairman and Mike Thurman and Ed Furlong co-chairmen.

Slagelse, Denmark

Arne Helweg