

**In the November 1996 issue of *Chemistry International*, Dr John Duffus of Heriot-Watt University, Scotland, challenged the previous publication (*Chemistry International*, May 1996) of a figure showing the toxicity of various chemical elements taken from the set of teaching aids, DIDAC-1, produced by Agfa-Gevaert. Two members of the DIDAC working group at Agfa-Gevaert who were co-responsible for the contents as well as the illustrations of the teaching aids respond:**

(1) The aim of Prof. P. De Bièvre's article in *Chemistry International* 1996, **18**(3), 96, was to report about the initiative taken by the Belgian National Committee for Chemistry to celebrate IUPAC's 75 years, coinciding incidentally with the 100th anniversary of Agfa-Gevaert N.V.

(2) As a present to the Belgian teachers of chemistry a package of teaching aids for chemistry containing 63 full-colour transparencies, a black-and-white copy of each transparency for easy photocopying and distribution to pupils and an accompanying explanatory text available in Dutch, French or English was made available to every participating teacher. Prof. P. De Bièvre mentioned this in his report. The IUPAC secretariat, at its own initiative, selected a transparency from the series and added it to the article of Prof. P. De Bièvre as an illustration, of course without the accompanying explanatory text available to the teacher.

(3) No doubt, the comments of Dr J. Duffus on the illustrative transparency as such (the black-and-white version) are correct. Unfortunately, the text accompanying the transparency is missing: '...it can be demonstrated that certain elements which are listed as harmful or toxic, are also essential for the metabolism of living beings. In this apparent contradiction lies the answer to the question: when is a chemical substance harmful or dangerous? It all depends on the type and degree of

exposure to the substance and the amount absorbed by the living organism. Danger is a relative concept.' Moreover the published transparency is to be used in conjunction with another related transparency, demonstrating the abundance of the elements in living organisms.

Thus it can be concluded that the comments of Dr. Duffus and the explanatory text in DIDAC-1 present the same ideas.

In the meantime we are pleased to let you know that DIDAC already contains three volumes and that the volumes 4, 5 and 6 are in preparation. The working group is composed of about 20 high-level research people of Agfa-Gevaert and authorities of our five Flemish universities, whose aim is to make chemistry lessons attractive to young people in order to stimulate further learning and simultaneously eliminating the often misunderstood image and role chemistry has.

Yours sincerely,

**Jan De Roeck & Eddy Michiels,  
Agfa-Gevaert N.V.,  
On behalf of the working group DIDAC**