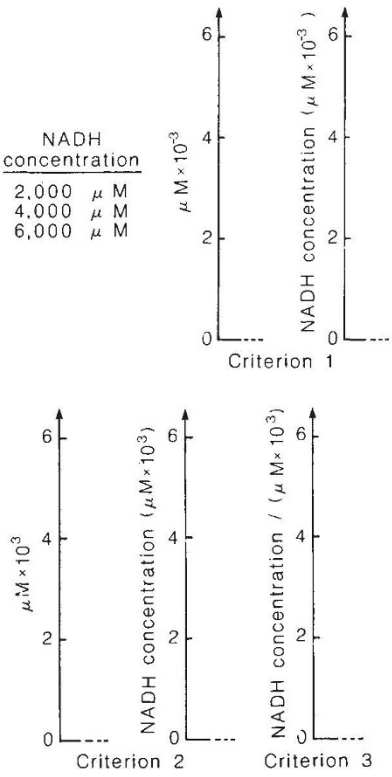

Fig. 1 Hypothetical experimental data showing common criteria for graphical presentation.

and some other units. Despite the method approved by the Royal Society (criterion 3) being mathematically the most precise and elegant, it is difficult to envisage its general use particularly outside the scientific community (in, for example, newspapers and television). In many (most?) biochemical papers, criterion 1 seems to be followed and even in well established books it is easy to find inconsistent usage: here for example, in ref. 3 criterion 1 is used in fig. IV-29 but fig. IX-2 uses criterion 2. Use of criterion 1 may be prone to ambiguous interpretation as shown in Fig. 1 — with data in thousands of μM (indeed mM), we end up with the axis labelled μM × 10^{-3} when this criterion is followed (not in fact mM, but nM!)

Although in virtually all cases it is easy to recognise which method has been used (and this may explain why several methods coexist), the indiscriminate use of different ways of labelling graphs and tables does not contribute to the clarity with which scientific knowledge must be presented. In this respect, I would rule out criterion 1 because it is the most ambiguous.

RICARDO FERREIRA
Department of Biochemistry,
School of Biological Sciences,
University of East Anglia,
Norwich NR4 7TJ, UK

1. Paolini, M. *Nature* **321**, 568 (1986).
2. The Symbols Committee of the Royal Society *Quantities, Units and Symbols* (The Royal Society, London, 1971).
3. Dixon, M. & Webb, E.C. *Enzymes* (Longman, London, 1979).

Silver from Chernobyl

SIR—I beg to differ with R.H. Flowers (*Nature* **323** 208; 1986) concerning the origin of ^{110m}Ag in fallout from Chernobyl.

It is easily calculated that at most 400 grams of the fission product ^{109}Ag had been produced in the reactor core of Chernobyl-4 up to the moment of the accident. On the other hand the reactor was equipped with about 200 in-core neutron detectors of the self-powered type with emitters composed of silver. These emitters are up to 2.5 metres per detector and, in all, contain many kilograms of natural silver, about 48 per cent of which is ^{109}Ag.

Therefore the ^{110m}Ag which has also been detected in significant amounts in the Netherlands, is indeed an activation product but almost entirely originates from molten detectors.

H. VAN DAM
Interuniversity Reactor Institute,
2629 JB Delft, The Netherlands

Chernobyl fallout in Debrecen, Hungary

SIR—Since 1952, total beta activity of fallout in precipitation has been measured in Debrecen without interruption[1,2]. The precipitation is collected daily by a PVC funnel (40 cm diameter) and evaporated into standardized glass cups, where total beta activity is measured by an end window Geiger-Müller counter.

On 29 April, 2.7 mm (340 cm^3) of rain was collected, but previous activity levels were unchanged. However, the shower of rain on 1 May (0.48 mm) resulted in 1,450 Bq m^{-2} initial total beta activity (Fig. 1). The next rainfall, on 9 May, was collected and processed in two parts (2.5 mm before noon and 3.1 mm afterwards). The initial activity of the first part was 2,500 Bq m^{-2} and that of the second part was only 160 Bq m^{-2}, which is impressive proof of the rapidity of change in tropospheric radioactivity and shows that the main mechanism of fallout deposition is rainfall. The specific activities of these three samples were 2,645; 980 and 46 Bq l^{-1} respectively.

We have identified the radioisotopes by the γ-ray spectra of the samples using a 100 cm^3 Ge (Li) detector surrounded by a 5 cm lead shield. The isotopic composition of the fallout in the precipitations before noon on 1 May and 9 May proved to be the same, though the intensity ratios of short half-life radioisotopes were different.

The residual activity on the later date was that of the isotopes ^{103}Ru, ^{95}Zr, ^{95}Nb, ^{106}Ru, ^{106}Rh and ^{134,137}Cs.

In all, after 10 May the total beta activity level was less than in the first three samples, and did not significantly exceed, those of past years after 25 May.

E. CSONGOR
A.Z. KISS
B.M. NYAKÓ
E. SOMORJAI
Institute of Nuclear Research,
Hungarian Academy of Sciences,
H-4001 Debrecen,
POB 51, Hungary

1. Szalay, A. & Czongor, E. *Acta phys. hung.* **29**, 407–413 (1970).
2. Csongor, E. *Fizikai Szemle* **39**, 11–20 (1985).

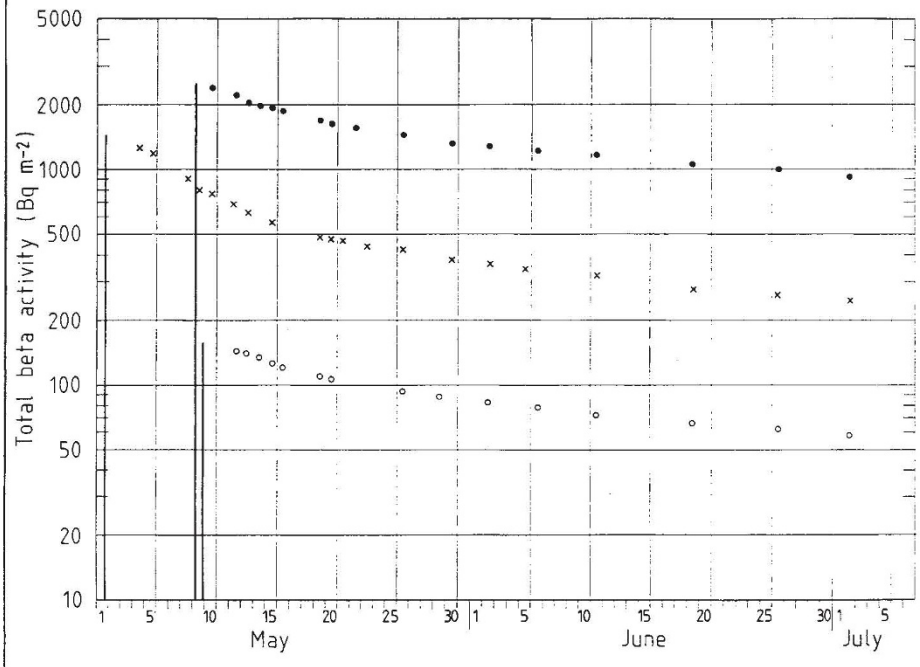

Fig. 1 Total beta activity of the Chernobyl fallout in the precipitation in Debrecen, Hungary during May–July 1986.