authentic butanone. Unirradiated samples show no detectable peak at this retention time under our analytical conditions. The peak is reproducible, and can be detected 20 days after irradiation.

We have established that the concentration of 2-dodecyl cyclobutanone produced by 5 kGy irradiation of minced chicken meat is approximately 0.2 μg g^{-1} fresh weight, five times our estimated limit of detection.

Our technique shows that 2-dodecyl cyclobutanone is a potential post-irradiation marker for minced chicken meat and possibly for other products. Further work is needed to tell whether the technique can by used to estimate irradiation doses and whether the marker survives various processing and storage conditions.

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Filters for cell culture

SIR—Knight (*Nature* **343**, 218; 1990) recently highlighted adverse effects of disposable filters on cell culture. We are encouraged to see that the performance of filters has been questioned. Investigators often do not realize that the use of such devices can lead to the addition of unknown variables to their procedures. However, this does not necessarily apply to all filters.

The wetting of polymeric filtration membranes with polyglycolethers or alternatives is generally necessary for filter preservation or their use with aqueous solution. These wetting chemicals are commonly leached from such membranes when incorporated in disposable syringe filters and other filtration devices. Leached chemicals may well interfere in many applications, especially cell culture.

On the contrary, inorganic membranes do not require the addition of such chemicals during their manufacture. We are concerned that the title of the correspondence may lead some scientists to believe that all membrane types leach such wetting agents and additives, which is not the case.

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Tropical leaf-litter nutrients

SIR—Singh *et al.*[1] suggest that microbial biomass is the main source of plant nutrients in dry tropical forest and savanna, but sources other than microbial biomass, and especially litter, could be of considerable importance in these ecosystems.

The annual rates of litter fall range from 5 to 10 tons per hectare in tropical forests. Unlike timber and roots, litter is frequently high in nitrogen. There is appreciable net mineralization as a result of its decomposition. Studies in Zaire and Guatemala have shown that about 80 per cent of potassium, 58 per cent of phosphorus and 38 per cent of nitrogen in the litter are mineralized within 4 weeks[2], thereby releasing 30 to 75 kg nitrogen, 1 to 4 kg phosphorus, and 5 to 50 kg potassium per hectare.

Litter accumulates largely during winter and summer, and the nutrient release of the accumulated biomass peaks at the onset of monsoon, when the rate of mineralization is high. Regardless of the source, mineralization of organic nitrogen increases sharply when dry soils are moistened[3,4], so the high release of nitrogen at the onset of monsoon need not be attributed exclusively to microbial biomass.

My opinion is further strengthened by recent observations[5] that, in the oak savanna of the foothills of the Sierra Nevada in a mediterranean climate, nitrogen in litter decreased fastest during late autumn and early spring, coinciding with the peak periods of plant growth. Through the early spring (February to April), nitrogen in litter decreased by about 47 per cent, compared with a decrease of roughly 7 per cent of nitrogen in microbial biomass, signifying that litter may make a larger contribution than microbial biomass to plant nutrition in the three ecosystems studied by Singh *et al.*

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Scientific Correspondence

Scientific Correspondence is intended to provide a forum in which readers may raise points of a scientific character. They need not arise out of anything published in *Nature*. In any case, priority will be given to letters of less than 500 words and five references. □

The name game

SIR—Bremer *et al.*[1] enjoin biologists to welcome frequent changes of nomenclature because they reflect constant improvements in knowledge of ancestral relationships. We explicitly reject the view that taxonomists have a responsibility to supply the stable nomenclature that most biologists need, and go on to suggest that synonyms should be accessible as an international database.

Biologists find it difficult enough to keep up to date with publications that are strictly relevant to their own research and do not welcome the additional burden of having to make constant cross references to the ever-increasing lists of synonyms. Few non-taxonomists see why research on ancestral relationships cannot proceed without accentuating the nomenclatural confusion.

The eminent systematist, Ernst Mayr, has assured us[2] that ". . . there is a large minority (perhaps actually a majority) of taxonomists who are as anxious to retain the stability of names as the average biologist. These . . . taxonomists fully realize that names are the keys to a vast information storage and retrieval system and that every change of name corresponds to a change of a key, resulting in confusion and loss of information."

Bremer[1] suggests that Mayr has been over-optimistic; sadly, this is certainly true of those taxonomists who work with yeasts, as can be seen from the following examples from recent work of some of the most distinguished researchers in this field. (1) In 1984, Kurtzman published descriptions of 30 species of *Hansenula*[3] and yet, the same year, he abolished almost the whole genus[4]. (2) In a series of papers published in 1987, Nakase and his colleagues described[5–7] four new species of *Sporobolomyces* which, only the following year, he moved to the genus *Bensingtonia*[8]. (3) However, van de Walt has outdone even these authors, describing the new species *Sporobolomyces phylladus*[9] after having previously changed its name to *Bensingtonia phylladus*[10]. ▶

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