

### Letters to the Editor.

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#### The International Research Council.

THE issue of the *Times* published on March 8 contains an article headed "The Progress of Science: Revolt against Super-Organisation." A few words of comment are necessary, though the task is disagreeable owing to the general tenor of the article, which in parts is frankly abusive and in others misleading. Its chief invective is directed against the International Research Council. This, according to the author, is to be "the supreme body in all the affairs of science," and he follows up this product of his imagination by enumerating in the same sentence the avowed objects of the International Research Council, placing a pure invention of his own in juxtaposition to the actual functions of the body concerned so as to leave the impression that both have equal authority.

The International Research Council was founded in the first instance through the action of the Royal Society and the Academies of Paris, Italy, Brussels, and Washington. Its object was to reorganise international work which had come to a standstill through the war, and to extend it where found desirable. The question as to the time at which former enemy countries should be admitted is a matter for argument, and it may be the policy of the *Times* to urge their immediate inclusion in the interests of the general peace of the world. Recent incidents at a meeting in Paris at which a German professor took part do not confirm this view, but the question has really nothing to do with the purpose which the article pretends to discuss. It should not be forgotten, however, that a friendly personal intercourse is an essential condition of the success of international conferences. This is recognised by the countries neutral during the war, which have nearly all accepted the invitation of the International Research Council to take part in this common enterprise.

The International Research Council has initiated the formation of unions for the conduct of scientific work. In the subjects of astronomy, geodesy and geophysics, and chemistry such unions are actually at work, and two others have been formed. Once an international union is established it becomes autonomous, and conducts its work without interference from the International Research Council except in a few matters in which a common policy is desirable.

Everyone knows that the decisions of an international conference are only advisory, and have no binding force on the separate countries. Representatives taking part in the conference report to the home authorities concerned, who act as they think fit, accepting, no doubt, in general such recommendations as have secured practical unanimity. At a recent meeting in Brussels certain countries desired to initiate the formation of an International Union of Biology, and their representatives tentatively drew up some statutes. These were submitted to a competent body in this country, which reported unfavourably, and there the matter ends so far as Great Britain is concerned. This does not, of course, prevent France, Italy, the United States, and other countries from forming a Union of Biology if they wish. I fail to understand where the grievance of the *Times* comes in.

ARTHUR SCHUSTER,

General Secretary of the International  
Research Council.

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#### The Constitution of the Alkali Metals.

IN a recent letter (*NATURE*, February 24, p. 827) attention was directed to positive rays of metallic elements generated by means of a heated anode by which lithium (atomic weight 6.94) was demonstrated to contain two isotopes 6 and 7. The mass spectrograph has now been successfully applied to the analysis of these rays and the investigation thereby extended to the heavier members of the group.

The method presents some peculiar technical difficulties, and the intensity of the lines yielded is very poor in comparison with that of the "gas" lines produced by the ordinary discharge tube. On the other hand, the arrangement is such that none of these ordinary "gas" lines appear at all, so that any line, however faint, if satisfactorily confirmed by repetitions with different fields, is conclusive evidence of the presence of metallic atoms of corresponding mass in the salt employed on the heated anode.

Sodium (atomic weight 23.00) is the easiest metal to deal with; its mass spectrum consists of a single line only. From the known values of the fields employed this line is in the position expected from the atomic weight; it is therefore assumed to be exactly 23, and used as a standard comparison line.

Potassium (atomic weight 39.10) gives a strong line at 39 and a very weak companion at 41. These figures are integers within about a quarter of a unit when compared with sodium 23. The relative intensities of the lines are not inconsistent with the accepted atomic weight. Potassium therefore probably consists of two isotopes 39 and 41.

Rubidium (atomic weight 85.45) gives two lines two units apart of relative intensity about 3 to 1. Comparison with the potassium line 39 gives these the masses 85 and 87 to within a fraction of a unit. As these values are in excellent agreement with the accepted atomic weight they may be taken, provisionally at least, as the weights of the two isotopic constituents of rubidium.

The mass spectra obtained from caesium (atomic weight 132.81) have so far exhibited only one line, which when measured against the rubidium lines indicates a mass 133. The intensity of this line leaves much to be desired, but it is sufficient to point to the conclusion that if, as the atomic weight would lead one to expect, another isotope of caesium exists, it is present in proportions of less than 5 per cent.

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Cavendish Laboratory, March 12.

#### The Designation of Vitamines.

IT is often said that a rose by any other name would smell as sweet but in chemistry this is not the case; the name is of consequence and the choice limited. I am glad that Prof. Liversidge takes exception in *NATURE* of March 10 to the sufficiency of the suggested dropping of the "e" from "vitamine"—the sting is still left in the "amin" tail; moreover, the word should be got rid of altogether, as it is but a monument of a gross experimental blunder.

In my early days one of the most valuable lessons I learnt was from the late Prof. A. W. Williamson, one of the keenest intellects of his day among chemists. He always insisted that we did well to use non-committal names—names which did not give expression to a view open to question but were simply descriptive of some recognisable character in no way open to doubt. No better illustration can be given than the use of the name "carbamide" for urea, actually enforced by the Chemical Society. "Urea" is non-committal but absolutely significant of the