SCIENCE NOTES AND NEWS

Smoke Points of Fatty Oil—White Oil Mixtures

Shri J. G. Kane and G. M. Ranadive, Department of Chemical Technology, University of Bombay, Bombay 19, write as follows:

Smoke point of a fatty oil is a guide to the use of the oil as a frying or a heating medium. Small amounts of fatty acids depress the smoke point of fatty oils considerably (Morgan, D. A., *Oil and Soap*, 1942, 19, 194). The authors observed that addition of white oil to fatty oil markedly lowered the smoke point of the latter in almost the same manner. Therefore if refined or crude fatty oils show very low smoke points inconsistent with their f.f.a. contents, white oil may be suspected to be present in them.

Introduction of the Exotic Cichlid Fish, *Tilapia mossambica* Peters. in Madras

Sri. D. D. Peter Devadas and P. I. Chacko, Freshwater Biological Station, Madras, write as *follows:*

A consignment of 500 fry (12 to 35 mm. in size) of *Tilapia mossambica* was imported to Madras from Ceylon on 8th September 1952. The fish were transported without any casualty in a tin container sealed with oxygen. This is the first instance of introduction of this exotic fish to India. Within a short time of three months the fish has responded favourably to the new environmental conditions of Madras. In the Chetpat Fish Farm it has not only attained to a size of 135 mm. and weight of 50 gm. by the end of November 1952 but has also bred prolifically. It grows well in association with local species like *Catla catla, Cirrhina mrigala, Labeo rohita, L. fimbriatus, Cyprinus carpio* and *Osphronemus goramy.* Non-cannibalistic habit, rapid growth and propagation, parental care, harmless association with indigenous species, adaptability to different types of fresh and brackish waters, capacity to withstand handling and transport and algicidal propensities make *Tilapia mossambica* an ideal fish suited for culture in South Indian waters, many of which dry during the summer.

A Simple Method of Germinating Sweet Potato Seeds

Messrs. L. Venkataratnam and K. Satyanarayanamurthy of the College of Agriculture, Bapatla, Madras, write as follows:

Seeds resulting from hybridisation of different clones of sweet potato (*Ipomœa batatas* Lam.) are hard-coated and do not germinate even after months of storage. Among the various attempts made to germinate the seeds, treatment with sulphuric acid was found the best for breaking dormancy and the imperviousness of the seed-coat. Over 60 per cent. germination was obtained as against 4 to 5 per cent. secured from untreated seeds.

Moist seeds are dropped into concentrated sulphuric acid just adequate to soak the seeds and the seeds are allowed to stand in the acid for about 10 minutes and then poured in a basin full of water. These can be washed and sown immediately. The treatment is simple and has no injurious effects. Dry seeds do not respond to the same extent as moist seeds as sufficient heat has to develop for proper wearing down of the seed-coat.

We are grateful to Professor T. C. N. Singh of the Annamalai University for many useful *suggestions.*

The Bose Institute—35th Anniversary Meeting

The Bose Institute celebrated the 35th Anniversary of its foundation on November 30th, 1952. The Director, before presenting his report on the working of the Institute for the past year, took the opportunity to refer to the 50th Anniversary of the publication in 1902 of Acharya Jagadish Chandra's book *Response in the Living and the Non-Living* which had at the time of its publication evolved a great deal of interest in learned circles. He reviewed in the light of the present-day knowledge, Acharya Bose's contribution to response phenomena in general. He also announced the receipt of a legacy of £ 5,000 from the Executors of the late Miss Edith Keating of London, income from which will be utilised for the creation of a Fellowship in the Bose Institute, which will be known as the Edith and Richard Keating Research Fellowship.

Award of Research Degrees

The following students of the Institute of Science, Bombay, have been declared eligible by the University of Bombay for the Degree of Doctor of Philosophy in Physics on the basis of the theses in the subjects shown against their names:

Shri K. S. Korgaokar, "Influence of Oxygen on the First and Second Positive Systems of Nitrogen"; Shri B. S. Patil, "Study of the Rotational Energy Distribution in Some Hydrocarbon Bands"; Shri G. K. Mehta, "Probe and Spectroscopic Studies in the High Frequency Discharges"; and Shri D. D. Desai, "Influence of Argon on the First and Second Positive Systems of Nitrogen".

Indian Botanical Society

The following Officers of the Indian Botanical Society have been constituted for the year 1953 as the result of election at the 32nd Annual Gneral Meeting of the Society held at Lucknow :—

President : Dr. K. A. Chowdhury, Dehra Dun ; *Vice-Presidents* : Dr. K. Biswas, Calcutta; and Dr. S. N. Das Gupta, Lucknow ; *Hony. Secretary* : Dr. R. Misra, Sagar ; *Treasurer and Business Manager* : Dr. T. S. Sadasivan, Madras ; *Editor-in-Chief* : Dr. A. C. Joshi, Jullunder.

Surface Conductive Glass

Tin salts can be baked into the surface of glass, changing it from an insulating material into a conductor for electricity. From this fact spring several novel applications including defrosting windows and wind screens and 'cold' lighting devices.

Hydrodynamic Lubrication

The behaviour of a journal bearing running eccentrically in a bush has been studied to check the validity of Sir Geoffrey Taylor's criterion for critical speed, worked out for one cylinder rotating concentrically inside another. Results of experiments so far show that the designer who arranged that Taylor's value was not exceeded would be on the safe side. This research is important because of the advent of the gas turbine and the introduction of rapidly rotating machinery for refrigerators and so on. They demand bearings running faster than has been usual up to now.

Protonsynchotron at Canberra

An atomic accelerator producing protons with energy of the order of 15,000 mev. is being built by Professor M. L. Oliphant at the Australian National University, Canberra. The protonsynchotron under construction is an improvement over the better known cyclotrons and synchotrons in the U.K. and the U.S.A. One of the limiting factors in the cyclotron principle thus far has been the focussing of particles within the magnetic field so that they hold on to the destined path. A discovery made at Brookhaven improved the focussing to a degree previously unknown. The Canberra construction is at the stage where the new improvement could be incorporated. With the extended range thus made possible for the study of properties of matter, Professor Oliphant and his assistants hope to obtain significantly new knowledge on the effects of particles on atomic nucleii.

Indian Phytopathological Society

At the Annual General Meeting of the Indian Phytopathological Society held during the last session of the Indian Science Congress at Lucknow, the following members were elected to the Council for 1953 :

President—Dr. R. S. Vasudeva; *Vice-President*—Dr. S. N. Das Gupta; and *Secretary-Treasurer*—Dr. R. Prasada.

NOTICE

All material intended for publication in *Current Science*, corrected proofs, books for review and exchange journals, may please be sent to the Editor :

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