

kept as control were also sacrificed. Gills from all the sacrificed fishes were removed and were fixed in $\text{AgNO}_3/\text{HNO}_3$ solution³.

Paraffin sections were cut, and deparaffined, and mounted in DPX.

On microscopic observations of the gills, no positive response of the chloride test was observed in the control fishes (figures 1, 2). In *M. (M.) vittatus*, intense positive response (+) of the chloride test (black deposit) was observed after 1 to 3 days of urea stress, whereas, in *C. punctatus* this response was observed in the gills of 1 to 7 days exposed fishes. In both the species, the majority of the cells giving positive response to the chloride test was situated on the basal portions of the secondary gill lamellae and on the interlamellar area (figures 3,4).

The possible involvement of the chloride cells in the excretion of ions other than those of chloride was proposed⁹⁻¹¹. These specific cells cannot be termed generally as "chloride secreting cells" or "chloride cells", since ions other than chloride are reported to be excreted through these cells. The present study implicates their role in adaptation to urea toxicity. A more generalised name should be given to these specific cells.

9 September 1985; Revised 17 September 1985

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ANNOUNCEMENT

INTERNATIONAL SEMINARS ON FRONTIER AREAS (ISOFA-I, II, III)

Three International seminars on Frontier Areas (ISOFA) will be held at Jorhat, India during 1986-87 to commemorate the Silver Jubilee Year of the establishment of Regional Research Laboratory, Jorhat, a National Laboratory of Council of Scientific & Industrial Research. The three seminars are as follows:—

ISOFA-I: 31 March to 5 April 1986 – Applied Chemical & Engineering Sciences which includes: 1. Chemical Reaction Engineering, 2. FBC (Coal), 3. Pulp & papertechnology, 4. Oil field chemicals and 5. Advances in analytical chemistry.

ISOFA-II: 27-30 October 1986 – Bio & Chemical Sciences which includes: 1. Natural products, 2. Organic synthesis, 3. Medicinal and Economic plants and 4. Biochemistry.

ISOFA-III: 11 to 13 February 1987 – Physical and Engineering Sciences, which includes: 1. Geoscience, 2. Applied Civil Engineering and 3. Mechanical Engineering.

For further details please contact Dr K. V. Raghavan, Co-ordinator, ISOFA and Deputy Director, Regional Research Laboratory, Jorhat 785 006, India.

SANJAY GANDHI AWARDS FOR SCIENCE AND TECHNOLOGY FOR 1984 AND 1985

Dr N. R. Moudgal, a distinguished biologist working at the Indian Institute of Science, Bangalore and Dr B. N. Saxena, Senior Deputy Director General at the Indian Council of Medical Research (HQ) New Delhi, share rupees one lakh of the Sanjay Gandhi Memorial Award in the field of family welfare and population control.

Dr C. V. Sundaram, Director, Reactor Research Centre, Kalpakkam, has been awarded Rs. one lakh with citation in the field of Energy. Dr Sundaram's contributions to berrilium and zirconium technology,

at the production level were note worthy. The development of materials for the nuclear programme under his leadership was a major contribution to the Indian success in the field of Nuclear Energy for peaceful purposes.

The award in the field of environment and ecology Rs. one lakh with citation has been awarded to Dr T. N. Khoshoo who was for many years, the Director of the National Botanical Research Institute, Lucknow, and had contributed significantly toward the conservation of wild life and biosphere reserves.

1ST INTERNATIONAL SYMPOSIUM ON ALLELOCHEMICALS

The Agricultural & Food Chemistry Division of American Chemical Society organised a symposium 'Allelochemicals: Role in Agriculture, Forestry and Ecology', as its 190th meeting at Hyatt Regency Hotel, Chicago during 8-13 September 1985. The symposium was held under the Chairmanship of Prof. G. R. Waller and a large number of Internationally known allelochemists participated in the deliberations. During symposium, 206 papers were presented by various scientists from almost all parts of the world. During this symposium the USDA-ARS presented Sterling B. Hendrick Memorial Lectureship Award to Prof. A. R. Putnam, for his work on allelopathy.

Dr S. J. H. Rizvi, who is an Assistant Professor of Plant Physiology at Rajendra Agricultural University, Pusa, Samastipur represented India on the invitation of American Chemical Society. He delivered a good lecture on 'Role of allelochemicals in improving crop productivity, which was acclaimed by the participants and it was felt that researches in the new emerging science of allelopathy will benefit the farmers'.

The abstract and details regarding the Proceedings of the symposium can be obtained from the office of the American Chemical Society at Washington and also from Dr S. J. H. Rizvi, Faculty of Basic Sciences, Rajendra Agricultural University, Pusa 848 125.

PROFESSOR M. O. P. IYENGAR CENTENARY CELEBRATIONS DECEMBER, 1986.

The Centre for Advanced Study in Botany, University of Madras proposes to celebrate the birth centenary of the great Algologist, Professor M. O. P. Iyengar in December 1986. The celebrations will include (1) an International Workshop in Phycology, (2) an International Symposium on "Advanced

Phycology" and (3) Annual meeting of the Indian Botanical Society. For further details please contact, Prof. A. Mahadevan, Convener, Prof. M. O. P. Iyengar Centenary Celebrations Committee, C. A. S. in Botany, University of Madras, Madras 600 025.