

CSIR Young Scientist Awards 1990

Kandpal, H. C., National Physical Laboratory, New Delhi



He is working on the effect of source correlation leading to spectral shift. This has been verified experimentally and its implications in optical measurements, especially in spectroradiometry, spectroscopy and communication have been shown.

Mahipal, Reddy, B., Indian Institute of Chemical Technology, Hyderabad



He has developed efficient catalysts for ammoxidation and hydroprocessing, and has characterized catalysts by chemisorption, spin resonance and X-ray methods. He has also developed carbon-supported platinum catalysts for applications in fuel cells.

Misra, L. N., Central Institute of Medicinal and Aromatic Plants, Lucknow



He has isolated, identified and transformed the aromatic principles in the essential oil of *Artemisia pallens*. He has also been involved in the phytochemical investigations of various other medicinal and aromatic plants.

Purnachandra Rao, V., National Institute of Oceanography, Goa



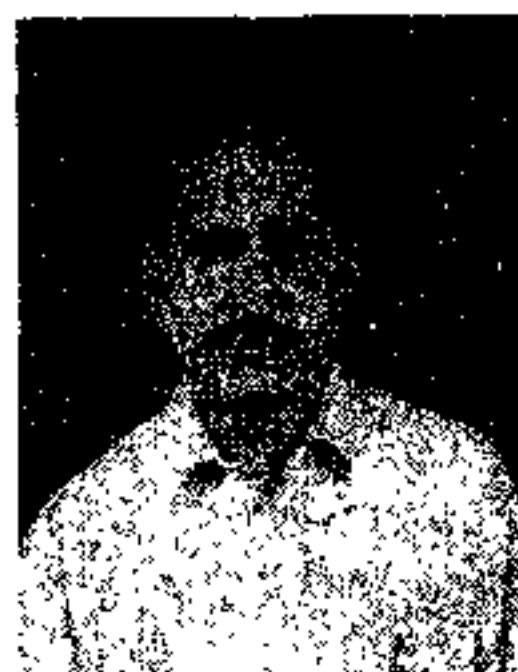
He has made research contributions towards the microbial theory of the genesis of continental-shelf and seamount phosphorites, the discovery of organic carbon-rich Quaternary black shales on the eastern continental margin of India, and clay mineralogy of shelf sediments to decipher the influence of physical-oceanographic processes on sediment distribution.

Tekwani, B. L., Central Drug Research Institute, Lucknow

Shanti Swarup Bhatnagar Prizes 1989

Banerjee, S., Bhabha Atomic Research Centre, Bombay

Chandrasekaran, S., Indian Institute of Science, Bangalore



His research interests are the development of new synthetic methodology for

organic synthesis, synthesis of natural products, organometallic chemistry and reaction mechanisms.

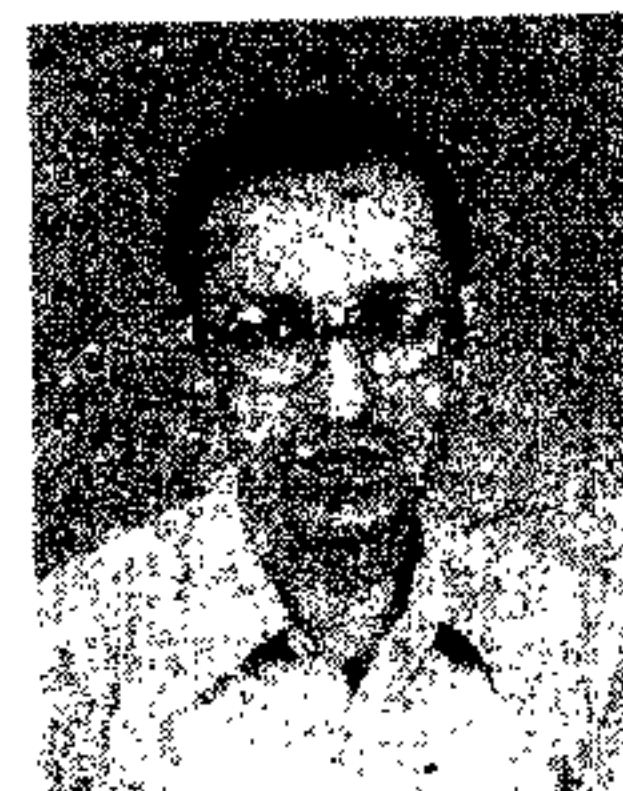
Chaudhuri, Mihir K., North-Eastern Hill University, Shillong



His research interests are synthesis, structural evaluation and investigation of reactivity of fluoro- and peroxo-compounds of metals and non-metals,

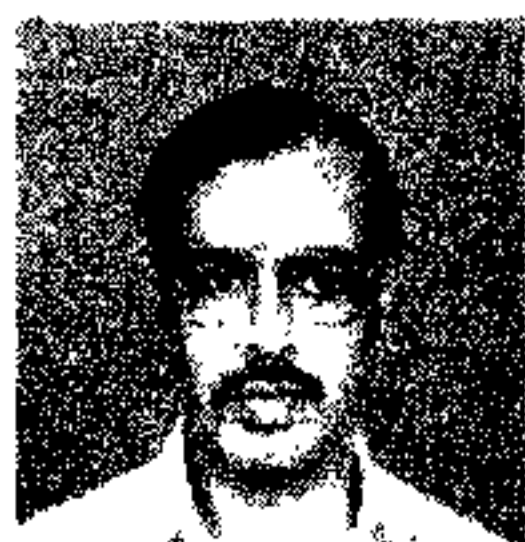
and acetyl-acetonato complexes of metals. He is also involved in developing new reagents and in the mass spectrometry of metal compounds.

Lakhotia, S. C., Banaras Hindu University, Varanasi



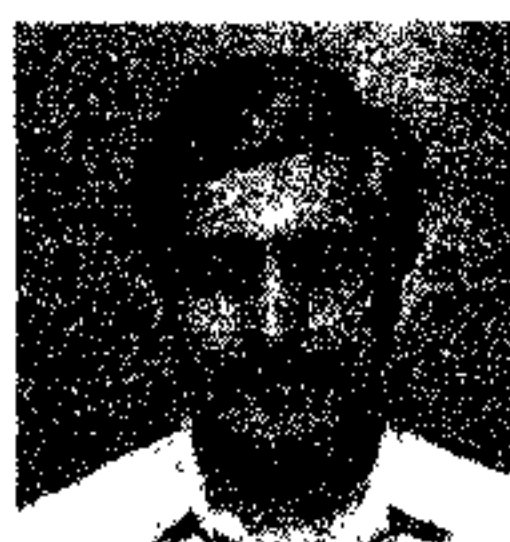
His research interests are in the general areas of cytogenetics and molecular biology. He is especially interested in gene expression and is studying the heat-shock response in *Drosophila*.

Lakshmanan, M., Bharathidasan University, Tiruchirapalli



He has made research contributions to theoretical physics with special reference to nonlinear dynamics, solitons, and classical and quantum chaos.

Madhusudana, N. V., Raman Research Institute, Bangalore



He has contributed to both experimental and theoretical studies on liquid crystals. Liquid crystals are extensively used in display devices. Madhusudana has been closely associated with a co-operative effort with Bharat Electronics in Bangalore to develop indigenous know-how for the manufacture of these devices.

Pandey, P. C., Indian Space Research Organization, Ahmedabad



His research contributions are in the application of microwave techniques, both active and passive, in the study of the earth's atmosphere and oceans. He helped initiate microwave radiometry research in India.

Prasad, Gopal, Tata Institute of Fundamental Research, Bombay



He is a leading mathematician in the theory of algebraic groups and their arithmetic. Among his significant contributions are strong approximation for semi-simple groups over function fields, study of central extensions of p-adic and abelian groups and the computation of the covolume of all principal S-arithmetic subgroups.

Ray, Manju, Jadavpur University, Calcutta



She has placed methylglyoxal as an integral component of carbohydrate and intermediary metabolism by isolation, purification and characterization of a series of enzymes concerned with anabolic and catabolic reactions involving this compound.

Venkateswara Rao, G., Vikram Sarabhai Space Centre, Trivandrum



His fields of interest are finite element methods; static, dynamic, stability and thermal analyses of structures; optimum design of structures; analysis of structures including nonlinear effects and development of general-purpose computer programs for structural analysis.