

Proceedings of the Indian National Science Academy

Vol. 55, Part A, No. 1

JANUARY 1989

CONTENTS

Page

<i>INSA-Vainu Bappu Memorial Award Lecture-1988</i> : Contributions of Astronomy to Fundamental Physics	J V Narlikar, FNA	1
<i>Shanti Swarup Bhatnagar Medal Award Lecture-1988</i> : Black Cotton Soils—Highly Expansive Clays of India	Dinesh Mohan, FNA	14
Spatial Moments of Phase Density of a Flux of Cascade Atoms in Kinetic Theory of Sputtering Ferromagnetics	H A Motaweh, A A Aly, A M Hafez and M V Kuvakin	30
Viscosities and Densities of Some Multicharged Electrolytes in Isopropanol-Water Mixtures	M L Parmar and Anita Khanna	35
Computed Partial Neutron Cross-Sections of ^{51}V at 14 MeV for Trace Elemental Analysis of Biological Samples	R S Khanchi, S K Jain and R K Mohindra	46
Constitution of Premtorin : Synthetic Studies	D K Bhardwaj, A K Gupta, A Jain, V K Shrawat and A Sharma	50
Laser Raman Spectrum and Vibrational Assignment of <i>Meta</i> Bromo Benzaldehyde	S Gunasekaran, K Jayaraman and R Balanathan	54
Overreflection and Overtransmission of Rossby Waves by Zonal Shear	P Kandaswamy and A Anguraj	59
Binding, Coulomb and Relativistic Effects in K-Shell Ionization	F M El-Ashry, N Z Darwish, Kh M Omar and S S Saad	66
Kinetics and Mechanism of Ru(III)-Catalysed Oxidation of Benzyl Alcohol and Substituted Benzyl Alcohols By Trichloroisocyanuric Acid (TCCA) in Acid Medium	Subas C Pati and P S C Patro	75
A Potential For the Description of Alpha Scattering on ^7Li and ^{12}C at Low Energies	F M El-Ashry, N Z Darwish, Kh M Omar and S S Saad	82
Synthesis and Screening of Some Newer 6, 8-Dichloro-2-Methyl-3-(Substituted)-4(3H)-Quinazolinones as Antimicrobial Agents	Y A Mohamed, Y A Ammar, A M Sh El-Sharief and H Ahmed	87

(Continued on Third Cover)

(Continued from Fourth Cover)

An Electron Microscopic Observation on Nuclease Digestion of Chicken Erythrocyte Chromatin	M Sinha-Bera, A Sen and A Ganguly	96
The Earth's Innermost Core	J N Nanda	101
Conformational Studies in Cyclohexylbromide	T S Reddy and N P Rao	110
Taxonomic Comments on <i>Discorbis</i> Lamarck 1804 (Foraminiferida)	S N Bhalla and Pramendra Dev	116
Characteristics and Genesis of Some Alluvium-derived Soils of Jammu and Kashmir	R D Gupta, R R Anand and P D Sharma	120