

Proceedings of the Indian National Science Academy

Vol. 46, Part A, No. 2

March 1980

CONTENTS

- Srinivasa Ramanujan Medal Lecture—1979* : Number Theory—Many Challenges. Some Achievements
R. P. Bambah 109

CHEMISTRY

- Kinetic Study of Oxidation of Cycloheptanone by N-Bromosuccinimide in Acidic Media
S. P. Mushran, Kameshwar Singh, Lalji Pandey and S. M. Pandey 119

- Gd(III), Tb(III), Dy(III) and Ho(III)-Chelates of N-Acetylacetone Valine and 3-(3-Hydroxy-2-Naphthylideneimino)Propanoic Acid Schiff Bases
C. P. Gupta, K. G. Sharma, R. S. Shekhawat and R. K. Mehta 126

- Alkali Catalysed 2, 3-Xylenol Formaldehyde Reaction—Its Kinetics and Mechanism
H. C. Malhotra and V. P. Tyagi 131

- Characterization and Thermal Transformation of Fe(III) Coprecipitated with Aluminium Hydroxide
I. P. Saraswat, A. C. Vajpei, Uma, V. K. Garg, Nam Prakash and Vijay K. Sharma 140

PHYSICS

- Vertical Cosmic Ray Muon Flux and Charge Ratio in the Momentum Region (0.3 GeV/c-2 GeV/c)
Surendra Kumar Jain 149

- Study of Association of Molecules of Rhodamine 6G by Fluorescence Polarization
M. L. Pandya and M. K. Machwe 158

- Periodic Heat Transfer to an Infinite Cylindrical Cavity in Ground Having Air at Constant Temperature
M. S. Sodha, I. C. Goyal, A. K. Ghatak, Arun Kumar and M. A. S. Malik 167

- Optical Absorption Spectrum of Fe³⁺ in Orthoclase Feldspar
B. J. Reddy and K. B. N. Sarma 176

- Decay of ⁶⁰Co to Levels in ⁶⁰Fe
A. K. Sharma, Ravinder Kaur, H. R. Verma, K. K. Suri and P. N. Trehan 181