

## CONTENTS

	PAGE
Lattice Dynamics of Crystals having Rutile Structure, ( $FeF_2$ , $MnF_2$ , $MgF_2$ and $TiO_2$ ) <i>R. S. Katiyar and R. S. Krishnan</i> . . . . .	121
Secondary Flow of a Elastico-Viscous Fluid between two Co-axial Cones Oscillating about a fixed Axis. <i>K. S. Bhatnagar</i> . . . . .	134
Investigations into the Pattern of Microbial Colonization of Early Rhizosphere with Model Systems. <i>V. N. Vasantharajan</i> . . . . .	148
A Calculation of the Viscous Energy Dissipation in a Convergent Flow and its Application to the Process of Emulsification. <i>S. V. Subramanyam</i> . . . . .	155
On Oscillations of a Spheroid along its Axis in Micropolar Fluid. <i>Mrs Renuka Ravindran</i> . . . . .	168
Hydropolymerization of Acetylene over Palladium Catalyst in fixed Bed Part I: Effect of different Variables on the Pattern of Acetylene Conversion. <i>Manas Chanda and S. S. Ghosh</i> . . . . .	180
Hydropolymerization of Acetylene over Palladium Catalyst Part II: Kinetic Interpretation. <i>Manas Chanda and S. S. Ghosh</i> . . . . .	200