

# PHYSICS OF VIBRATIONS

Volume 10, Number 1, 2002

## CONTENTS

### MACROPARTICLES IN ELECTROLYTE LIQUIDS

- Screening of Strongly Charged Macroparticles in Electrolyte Liquid Solutions  
*N.F. Bunkin and F.V. Bunkin*..... 1

### FLUID DYNAMICS

- Cavitation Effects in Ship Wake: Wave Measurement and Theory  
*N.F. Bunkin, I.V. Shugan, J.S. Sung, and T.H. Kim*..... 15
- Impact of Pressure on the Optical Breakdown Mode of Transparent Liquid  
*S.I. Bakum, N.F. Bunkin, and G.A. Lyakhov*..... 26
- Group Hierarchy in Water Phase  $p-T$  Diagram. Ferroelectric Ice  
*G.A. Lyakhov and D.M. Mazo*..... 33

### NONLINEAR OPTICS

- Laser Beam Propagation in Opaque Liquids  
*S.I. Dolgaev, A.V. Simakin, and G.A. Shafeev*..... 43

### NONLINEAR SPECTROSCOPY

- Laser Radiation Local Field Impact on Raman Scattering Spectra in Water  
*A.F. Bunkin and S.M. Pershin*..... 51

### DYNAMICAL AND QUANTUM CHAOS

- Peculiarities of Fast Bifurcation Transitions in Presence of Noise  
*Yu.A. Kravtsov, O.Ya. Butkovskii, S.G. Bilchinskaya, and E.D. Surovyatkina*..... 54