

# Contents

## Volume 44, Number 1, 1998

Simultaneous English language translation of the journal is available from MAIK Hayka/Interperiodica Publishing (Russia).  
Distributed worldwide by the American Institute of Physics. *Acoustical Physics* ISSN 1063-7710.

Computer Modeling and Analysis of a Cylindrical Hydroacoustic Antenna <i>S. M. Balabaev</i>	5
A Physical Model and the Near Field Characteristics of a Multipole <i>Yu. I. Bobrovnikskii</i>	11
Acoustic Properties of Polymeric Mixtures <i>N. A. Bordyuk, S. M. Gusakovskii, S. N. Ivanishchuk, and B. S. Kolupaev</i>	21
Effect of Hydrostatic Pressure on Electrolytic Absorption of Sound in Seawater <i>R. A. Vadov and V. P. Glotov</i>	25
Acoustooptic Interaction of Weakly Divergent Gaussian Beams in Strongly Anisotropic Media <i>A. V. Vershubskii and V. N. Parygin</i>	32
Reconstruction of the Mean Temperature in a Water Layer from the Arrival Times of Quartets of Rays: Accuracy Estimations <i>A. L. Virovlyanskii, A. Yu. Kazarova, and L. Ya. Lyubavin</i>	39
Conversion of Elastic Waves in a Solid upon Reflection from an Impedance Load <i>A. E. Vovk and V. V. Tyutekin</i>	46
Time Spectra and Correlation Structure of Noise Fields at Long Distances in a Deep Ocean <i>O. P. Galkin and S. D. Pankova</i>	57
An Experimental Investigation of the Correlation Scales of a Sound Wave Traversed a Chaotic Bubble Screen <i>I. Yu. Gryaznova, V. V. Kurin, L. M. Kustov, and O. A. Tyurina</i>	64
Calculation of Ray Paths in a Shore Region with an Arbitrary Bottom Relief <i>N. N. Komissarova</i>	68
Search for Charged Massive Particles of Dark Matter using Satellite-Based Acoustic Detectors <i>K. A. Kotelnikov, L. M. Lyamshev, G. I. Merzon, N. G. Polukhina, T. Saito, H. Sasaki, N. I. Starkov, and V. A. Tsarev</i>	76
A Method for Calculating Acoustic Fields in a Finite Cylindrical Channel with a Flow <i>O. A. Kremleva and S. Z. Shkundin</i>	84
Sounding for Losses in SAW Devices Using Photoacoustic Technique <i>R. G. Kryshchal', A. V. Medved', V. I. Mirgorodskii, and S. V. Peshin</i>	89
The Effect of Hydrodynamic Variability on Frequency Shifts of the Interference Pattern of a Sound Field in a Shallow Sea <i>V. M. Kuz'kin, A. V. Ogurtsov, and V. G. Petnikov</i>	94
High-Order Wedge Mode Reflection from the Edge of a Sharp Elastic Wedge <i>A. V. Shanin</i>	101
Scattering of a Plane Sound Wave at a Semi-infinite Waveguide with a Stiff Flange <i>E. L. Shenderov</i>	106

## SHORT COMMUNICATIONS

The Secondary Field of the Sum-Frequency Wave in the Nonlinear Scattering of Plane Waves from a Sphere <i>I. B. Abbasov and N. P. Zagrai</i>	116
--	-----

Matching Layers Versus of Mechanical Damping of Acoustic Transducers in Short Pulse Production <i>S. I. Konovalov and A. G. Kuz'menko</i>	119
Sound Field Excited in a Hydroacoustic Waveguide by a Sea Bottom Displacement in a Coastal Slope <i>A. D. Lapin</i>	121

### CHRONICLE

Viktor Timofeevich Grinchenko (On His 60th Birthday)	125
In Memory of Igor Borisovich Yakovkin (1940-1997)	127

### INFORMATION

Paper's Readers for vol. 43, 1997	129
Subject Index for vol. 43, 1997	130
Author Index for vol. 43, 1997	139

25	R. A. Yul'ev and V. P. Glotov
32	A. P. Verbitskiy and V. V. Pargin
39	A. A. Tsvetkovskiy, A. Ya. Kabanov, and A. Ya. Lyubskiy
46	A. E. Volk and V. V. Tyunin
57	O. P. Gubanov and S. D. Pankov
64	A. Ya. Gerasimov, V. V. Kurik, E. M. Kuznetsov, and O. A. Tyunin
68	N. A. Komarova
76	K. A. Avel'nikov, E. M. Lyubskiy, G. I. Mironov, N. G. Polshina, I. S. Sain, N. I. Starikov, and V. A. Tsvetkov
84	O. A. Kuvshinov and S. N. Zakharenko
89	R. G. Kravtsov, A. V. Medved', V. I. Mironovskiy, and S. V. Pechenkin
94	V. M. Kuz'min, A. V. Gerasimov, and V. G. Pechenkin
101	A. V. Zhurav
106	E. I. Sazonov

### SHORT COMMUNICATIONS

116	I. B. Abubayev and N. P. Zagon
-----	--------------------------------