

## К 75-летию открытия сверхтекучести

Ответственные за выпуск Э.Я. Рудаковский и С.С. Соколов

## Содержание

Вступление .....	1047
<b>Квантованные вихри и турбулентность</b>	
<i>Nemirovskii S.K.</i> Decay of the vortex tangle at zero temperature and quasiclassical turbulence .....	1049
<i>Mineev V.P.</i> Half-quantum vortices .....	1056
<i>Sheshin G., Gritsenko I., Schmoranzner D., and Skrbek L.</i> Mutual interactions of oscillating quartz tuning forks in superfluid $^4\text{He}$ .....	1062
<b>Электроны и ионы над/в сверхтекучем гелии</b>	
<i>Monarkha Yu.P.</i> The fine structure of microwave-induced magneto-oscillations in photoconductivity of the two-dimensional electron system formed on a liquid-helium surface .....	1068
<i>Шукин В.</i> Низкочастотные аномалии эффективной массы заряженных кластеров в жидком гелии .....	1079
<i>Yamanaka Shuji, Arai Toshikazu, Sawada Anju, Fukuda Akira, and Yayama Hideki</i> Oscillation mode transformation of edge magnetoplasmons in two-dimensional electron system on liquid-helium surface .....	1086
<i>Сморodin A.B., Николаенко В.А., Соколов С.С.</i> Полярное состояние поверхностных электронов над гелием, покрывающим структурированную подложку .....	1096
<b>Поиск новых сверхтекучих систем</b>	
<i>Bešlić I., Markić L. Vranješ, and Boronat J.</i> Spin-polarized hydrogen and its isotopes: a rich class of quantum phases (Review Article) .....	1104
<i>Шульга С.Н., Слюсаренко Ю.В.</i> Теория сверхтекучих состояний с синглетным и триплетным типами спаривания в ядерной материи .....	1123
<i>Rovenchak A.</i> Phase transition in a system of 1D harmonic oscillators obeying Polychronakos statistics with a complex parameter .....	1141
<i>Gumann P. and Kojima H.</i> Aging of solid $^4\text{He}$ under torsional oscillation at low temperatures .....	1146

## On the 75th Anniversary of the Discovery of Superfluidity

Guest Editors E.Ya. Rudavskii and S.S. Sokolov

## Contents

Preface .....	1047
<b>Quantized vortices and turbulence</b>	
<i>Nemirovskii S.K.</i> Decay of the vortex tangle at zero temperature and quasiclassical turbulence .....	1049
<i>Mineev V.P.</i> Half-quantum vortices .....	1056
<i>Sheshin G., Gritsenko I., Schmoranzler D., and Skrbek L.</i> Mutual interactions of oscillating quartz tuning forks in superfluid $^4\text{He}$ .....	1062
<b>Electrons and ions over/in superfluid helium</b>	
<i>Monarkha Yu.P.</i> The fine structure of microwave-induced magneto-oscillations in photoconductivity of the two-dimensional electron system formed on a liquid-helium surface .....	1068
<i>Shikin V.</i> Low-frequency anomalies of effective mass of charged clusters in liquid helium .....	1079
<i>Yamanaka Shuji, Arai Toshikazu, Sawada Anju, Fukuda Akira, and Yayama Hideki</i> Oscillation mode transformation of edge magnetoplasmons in two-dimensional electron system on liquid-helium surface .....	1086
<i>Smorodin A.V., Nikolaenko V.A., and Sokolov S.S.</i> The polaron state of surface electrons over helium covering structured substrate .....	1096
<b>Search for new superfluid systems</b>	
<i>Bešlić I., Markić L. Vranješ, and Boronat J.</i> Spin-polarized hydrogen and its isotopes: a rich class of quantum phases (Review Article) .....	1104
<i>Shulga S.N. and Slusarenko Yu.V.</i> Theory of superfluid states with singlet and triplet types of pairing in nuclear matter .....	1123
<i>Rovenchak A.</i> Phase transition in a system of 1D harmonic oscillators obeying Polychronakos statistics with a complex parameter .....	1141
<i>Gumann P. and Kojima H.</i> Aging of solid $^4\text{He}$ under torsional oscillation at low temperatures .....	1146