

# PHYSICS- USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*  
September 2006 Volume 176 Number 9

## Contents

<b>Volume 49</b> <b>Number 9</b> <b>2006</b> <b>Pages 887–1000</b>	REVIEWS OF TOPICAL PROBLEMS	
	<b>Fabrication of germanium and silicon nanostructures using a scanning tunneling microscope</b>	887
	A A Shklyayev, M Ichikawa	
	<b>Ultrahigh-energy neutrinos from astrophysical sources and superheavy particle decays</b>	905
	V A Ryabov	
	METHODOLOGICAL NOTES	
	<b>Braking of a magnetic dipole moving with an arbitrary velocity through a conducting pipe</b>	937
	B A Knyazev, I A Kotel'nikov, A A Tyutin, V S Cherkassky	
	<b>On the redefinition of the kilogram and ampere in terms of fundamental physical constants</b>	947
	S G Karshenboim	
	CONFERENCES AND SYMPOSIA	
	<b>Scientific session of the Physical Sciences Division of the Russian Academy of Sciences (12 April 2006):</b>	955
	<b>High-sensitivity terahertz radiation detectors based on a new class of semiconductor materials</b>	
	D R Khokhlov	855

*Continued overleaf*

*Contents continued*

<b>Modulation gamma-resonance spectroscopy</b> A V Mitin	959
<b>Methods and tools for the express immunoassay. A new approach to solving the problem</b> V E Kurochkin	965
<b>Adaptive optical imaging in the atmosphere</b> V P Lukin	971
LETTERS TO THE EDITORS	
<b>Fractional charge: a new trend in electronics</b> V P Bykov	979
<b>On V P Bykov's article "Fractional charge: a new trend in electronics"</b> V A Rubakov	986
PERSONALIA	
<b>In memory of Yurii Lukich Sokolov</b> S T Belyaev, E P Velikhov, A A Zamyatnin, M B Kadomtsev, V I Kogan, V M Kulygin, G von Oppen, V G Pal'chikov, V P Smirnov, A Zeilinger, V D Shafranov, V P Yakovlev	987
<b>In memory of Lidia Vasil'evna Kurnosova</b> Yu N Vavilov, T I Galkina, V L Ginzburg, A V Gurevich, N S Kardashov, V G Kurt, A N Lebedev, G A Mesyats, N M Nesterova, Yu I Stozhkov, N P Topchiev, M I Fradkin	991
BIBLIOGRAPHY	
<b>New books on physics and related sciences</b> E V Zakharova	995
<b>Physics news on the Internet</b> Yu N Eroshenko	999