

PHYSICS– USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
March 2010 Volume 180 Number 3

Contents

Volume 53 Number 3 2010 Pages 219–326	REVIEWS OF TOPICAL PROBLEMS	
	Exotic charmonium	219
	G V Pakhlova, P N Pakhlov, S I Eidel'man	
	Surface states in photonic crystals	243
	A P Vinogradov, A V Dorofeenko, A M Merzlikin, A A Lisyansky	
	INSTRUMENTS AND METHODS OF INVESTIGATION	
	Equipment and techniques for carbon nanotube research	257
	A I Vorob'eva	
	Classification of Ge hut clusters in arrays formed by molecular beam epitaxy at low temperatures on the Si(001) surface	279
	L V Arapkina, V A Yuryev	
	METHODOLOGICAL NOTES	
	On some correlations in seismodynamics and on two components of Earth's seismic activity	291
	A M Fridman, E V Polyachenko, N R Nasyrkanov	
	CONFERENCES AND SYMPOSIA	
	Honoring the 90th birthday of Academician I M Khalatnikov	301
	(Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 21 October 2009):	
	The problem of singularities and chaos in cosmology	301
	A Yu Kamenshchik	

Continued overleaf

Contents continued

Above the barrier (I M Khalatnikov's works on the scattering of high-energy particles) V L Pokrovsky	309
Screening and antiscreening of charge in gauge theories I B Khriplovich	315
LETTERS TO THE EDITORS	
On the relativistic invariance of the Minkowski and Abraham energy-momentum tensors V G Veselago, V V Shchavlev	317
PERSONALIA	
Zhores Ivanovich Alferov (on his 80th birthday) A F Andreev, A L Aseev, E P Velikhov, A A Gorbatsevich, Yu V Gulyaev, A E Zhukov, L V Keldysh, G Ya Krasnikov, N N Ledentsov, Yu S Osipov, R A Suris, V E Fortov	319
BIBLIOGRAPHY	
New books on physics and related sciences E V Zakharova	321
Physics news on the Internet Yu N Eroshenko	325