

PHYSICS– USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
 April 2010 Volume 180 Number 4

Contents

Volume 53
Number 4
2010
Pages 327–430

REVIEWS OF TOPICAL PROBLEMS	
21st century: what is life from the perspective of physics?	327
G R Ivanitskii	
Nonlinear dynamics of the brain: emotion and cognition	357
M I Rabinovich, M K Muezzinoglu	
PHYSICS OF OUR DAYS	
Cosmic microwave background anisotropy data correlation in WMAP and Relikt-1 experiments	373
D P Skulachev	
FROM THE HISTORY OF PHYSICS	
How in the 20th century physicists, chemists and biologists answered the question: what is life?	377
V P Reutov, A N Schechter	
CONFERENCES AND SYMPOSIA	
Extragalactic astronomy	397
(Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 28 October 2009):	
Big Bang nucleosynthesis of deuterium and HD/H₂ molecular abundances in interstellar clouds of 12 Gyr ago	397
D A Varshalovich, A V Ivanchik, S A Balashev, P Petitjean	

Continued overleaf

Contents continued

Cosmic gamma-ray bursts and gamma repeaters studies with Ioffe Institute Konus experiments R L Aptekar, S V Golenetskii, E P Mazets, V D Pal'shin, D D Frederiks	401
Discovery of the fast optical variability of GRB 080319B and the prospects for wide-field optical monitoring with high time resolution G M Beskin, S V Karpov, S V Bondar, V L Plokhotnichenko, A Guarnieri, C Bartolini, G Greco, A Piccioni	406
Galactic disks and their evolution A V Zasov, O K Sil'chenko	415
Dark components of the Universe V V Burdyuzha	419
 PERSONALIA	
In memory of Albert Nikiforovich Tavkhelidze V S Vladimirov, V G Kadyshevsky, A A Logunov, V A Matveev, Yu S Osipov, B E Paton, E M Primakov, V A Rubakov, V A Sadovnichy, A N Sissakian, A N Skrinsky, D V Shirkov	425
 BIBLIOGRAPHY	
New books on physics and related sciences E V Zakharova	427
Physics news on the Internet Yu N Eroshenko	429