

ISSN 1560-8034  
ISSN 1605-6582 (On-line)  
ISSN 1606-1365 (CD-ROM)

National Academy of Sciences of Ukraine  
V. Lashkaryov Institute of Semiconductor Physics  
Technology Park "Semiconductor Technologies and Materials,  
Optoelectronics and Sensor Technique"  
Ukrainian Society for Optical Engineering

# SEMICONDUCTOR PHYSICS QUANTUM ELECTRONICS & OPTOELECTRONICS

**Volume 13, N 4**

**2010**

Subscription index 10004

Registered by The State Committee for Informational Policy  
and Broadcasting of Ukraine. Certificate № 4350

Published since 1998

© V. Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine

---

Department of optic and optoelectronic registering media, V.  
Lashkaryov Institute of Semiconductor Physics  
National Academy of Sciences of Ukraine  
Web: [www.journal-spqeo.org.ua](http://www.journal-spqeo.org.ua)



Editorial Board Address:  
41, prospect Nauky, 03028 Kyiv, Ukraine  
Phone: +380 (44) 525 6205, Fax: +380 (44) 525 5430  
E-mail: [journal@journal-spqeo.org.ua](mailto:journal@journal-spqeo.org.ua)  
E-mail: [journal@isp.kiev.ua](mailto:journal@isp.kiev.ua)

---