



Professor Dmitri A. Pavlov, Head of the Department of Semiconductor Physics and Optoelectronics, Faculty of Physics, Lobachevski State University of Nizhny Novgorod
Date & Place of birth: October 16, 1960, Gorky, USSR (Now Nizhny Novgorod, Russia)
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CURRICULUM VITAE

EDUCATION

1978-1983 Nizhny Novgorod State University, Faculty of Physics

DEGREES, RANKS & PROFESSIONAL EXPERIENCE

1983-1985 Engineer of the N. Novgorod R&D Institute of Measuring Instruments "KVARZ"
1985-1991 Assistant Professor, Lobachevski State University
1990 Candidate of Science (Ph.D.) – Physics and Mathematics
1991-1994 Senior Lecturer
1994-2002 Associate Professor
1997-2003 Vice Dean – Information Network
2001 Doctor of Science – Physics and Mathematics
2002 Professor of the Department of Semiconductor Physics and Optoelectronics
2003 Head of the Department of Semiconductor Physics and Optoelectronics

LANGUAGES (Written and oral abilities)

On the scale rudimentary, poor, good, very good and excellent:
Russian - excellent; English - good; German - good.

SCIENTIFIC WORK

The author of 350 scientific works in the field of materials science and semiconductors physics. Title of Ph.D. Thesis «*Structure and Properties of Amorphous Silicon Doped with Isovalent Impurities*». Title of D.Sc. Thesis «*Structural Modification of Silicon Films in Growth and Doping Process*». Research area: Nanoelectronics, nanophotonics and spintronics of nanostructures based on silicon, germanium and A³B⁵ semiconductors; high-resolution transmission electron microscopy; X-ray energy dispersive spectrometry.

Selected publications list (available on [Research gate](#)):

1. Pavlov D.A., Bobrov A.I., Novikov A.V., Sorokin D.S., Malekhonova N.V., Pirogov A.V., Nikolitchev D.E., Boryakov A.V. *Investigation of deformations and strain fields in silicon matrix structures embedded with vertically stacked Ge(Si) self-assembled islands* // Appl. Phys. Lett.- 2014.- V. 105, No. 161910.- P. 1-5.
2. Pavlov D.A., Bobrov A.I., Malekhonova N.V., Pirogov A.V., Nezhdanov A.V. *Self-assembled nanocrystals discovered in Chelyabinsk meteorite* // Scientific Reports.- 2014.- V. 4, No. 4280.- P. 1-6.
3. Dorokhin M.V., Pavlov D.A., Bobrov A.I., Danilov Yu.A., Demina P.B., Zvonkov B.N., Zdoroveishchev A.V., Kudrin A.V., Malekhonova N.V., Malysheva E.I. *Epitaxial Growth of MnGa/GaAs Layers for Diodes with Spin Injection* // Physics of the Solid State.- 2014.- V. 56, No. 10.- P. 2131-2134.
4. Kudrin A.V., Shvetsov A.V., Danilov Yu.A., Timopheev A.A., Pavlov D.A., Bobrov A.I., Malekhonova N.V., Sobolev N.A. *Anomalous Hall effect in two-phase semiconductor structures: The role of ferromagnetic inclusions* // Phys. Rev. B. 2014.- V. 90, No. 024415.- P. 1-7.
5. Belyakov V.A., Sidorenko K.V., Konakov A.A., Ershov A.V., Chugrov I.A., Grachev D.A., Pavlov D.A., Bobrov A.I., Burdov V.A. *Quenching the photoluminescence from Si nanocrystals of smaller sizes in dense ensembles due to migration processes* // Journal of Luminescence.- 2014.- V. 155, No. 1.- P. 1-6.
6. Ershov A.V., Pavlov D.A., Grachev D.A., Bobrov A.I., Karabanova I.A., Chugrov I.A., Tetelbaum D.I. *Annealing Induced Evolution of the Structural and Morphological Properties of a Multilayer Nanoperiodic SiO₂/ZrO₂ System Containing Si Nanoclusters* // Semiconductors.- 2014.- V. 48, No. 1.- P. 42-45.
7. Pavlov D.A., Bidus N.V., Bobrov A.I., Vikhrova O.V., Volkova E.I., Zvonkov B.N., Malekhonova N.V., Sorokin D.S. *Distribution of Elastic Strains Appearing in Gallium Arsenide as a Result of Doping with Isovalent Impurities of Phosphorus and Indium* // Semiconductors.- 2015.- V. 49, No. 1.- P. 1-3. Pavlov D.A., Pirogov A.V., Krivulin N.O., Bobrov A.I. *Epitaxial growth of hexagonal silicon polytypes on sapphire* // Semiconductors.- 2015.- V. 49, No. 1.- P. 95-98
8. Aleshkin V.Ya., Baidus N.V., Dubinov A.A., Fefelov A.G., Krasilnik Z.F., Kudryavtsev K.E., Nekorkin S. M., Novikov A.V., Pavlov D.A., Samartsev I.V., Skorokhodov E.V., Shaleev M.V., Sushkov A.A., Yablonskiy A.N., Yunin P.A., Yurasov D.V. *Monolithically integrated InGaAs/GaAs/AlGaAs quantum well laser grown by MOCVD on exact Ge/Si(001) substrate* // Appl. Phys. Lett.- 2016.- V. 109, No. 061111.- P. 1-5.
9. Dorokhin M.V., Pavlov D.A., Bobrov A.I., Danilov Yu.A., Lesnikov V.P., Zvonkov B.N., Zdoroveyshchev A.V., Kudrin A.V., Demina P.B., Usov Yu.V., Nikolichev D.E., Kryukov R.N., Zubkov S.Yu. *Fabrication of MnGa/GaAs contacts for optoelectronics and spintronics applications* // Semiconductors.- 2016.- V. 50, No. 11.- P. 1443-1448.
10. Gorshkov O.N., Filatov D.O., Antonov D.A., Antonov I.N., Shenina M.E., Pavlov D.A. *An oscillator based on a single Au nanocluster* // J. Appl. Phys.- 2017.- V.121, No. 014308.- P. 1-6.
11. Buzynin Yu., Shengurov V., Zvonkov B., Buzynin A., Denisov S., Baidus N., Drozdov M., Pavlov D., Yunin P. *GaAs/Ge/Si epitaxial substrates: Development and characteristics* // AIP Advances.- 2017.- V. 7, No. 015304.- P. 1-6.
12. Alaferdov A.V., Savu R., Canesqui M.A., Kopelevich Y.V., da Silva R.R., Rozhkova N.N., Pavlov D.A., Usov Yu.V., de Trindade G.M., Moshkalev S.A. *Ripplocation in graphite nanoplatelets during sonication assisted liquid phase exfoliation* // Carbon.- 2018.- V. 129.- P. 826-829.