

CV of Vladimir Kochereshko

Ioffe Physical-Technical Institute, Russian Academy of Sciences, Politekhnikeskaya 26, 194021, St. Petersburg, Russia, and Saint Petersburg State University
Phone (812)2927174, fax (812)2971017
Birth date: March 28, 1951

Education

Dr. Sc. Degree, 1998, Ioffe Physical-Technical Institute RAS, St. Petersburg.

Ph.D. Degree, 1984, Ioffe Physical-Technical Institute RAS, Leningrad

M. Sc. 1974, Leningrad State University, Leningrad

Employment/Research

1974 – present Ioffe Physical Technical Institute, St. Petersburg,
assistant researcher (1974 - 1976),

junior scientist (1976 - 1984),

scientist (1984 - 1994),

senior scientist (1994 - 1999),

leading scientist (1999 - 2013)

chief scientist (2013 – present)

Professor of St. Petersburg State University (2002 - present)

Research Interests

Spectroscopy of semiconductor quantum wells, superlattices, quantum well wires and quantum dots.

Honors, Awards

Institute Prize for the best publications 1978, 1981, 1983, 1990, 1992, 1994, 1997; 2004, 2006; 2008; Ioffe Prize 2009, 2011, 2012, Gross medal of Russian Optical Society 2015

Total number of publications in refereed journals more than 200

Relevant publications

1. D.R.Yakovlev, V.P.Kochereshko, R.A.Suris, H.Schenk, W.Ossau, A.Waag G.Landwehr, P.C.M.Christianen and J.C.Maan, "*Combined Exciton-Cyclotron Resonance in Quantum Well Structures*" Phys.Rev.Lett, **79**, pp.3974-3977, (1997)
2. G.V.Astakhov, D.R.Yakovlev, V.P.Kochereshko, W.Ossau, J.Nurnberger, W.Faschinger, and G.Landwehr "*Charged excitons in ZnSe-based quantum wells*" Phys. Rev. **B60**, pp.R8485-R8488, (1999)
3. A.V.Platonov, V.P.Kochereshko, E.L.Ivchenko, G.V.Mikhailov, D.R.Yakovlev, M.Keim, W.Ossau, A.Waag, and G.Landwehr "*Giant electro-optical anisotropy in type II heterostructures*" Phys. Rev. Lett. **83**, No.17, pp.3546, (1999)
4. G.V.Astakhov, V.P.Kochereshko, D.R.Yakovlev, W.Ossau, J.Nürnbergger, W.Faschinger, and G.Landwehr "*Oscillator strength of trion states in ZnSe-based quantum wells*" Phys. Rev. **B62**, pp.10345-10352 (2000)
5. G.V.Astakhov, V.P.Kochereshko, D.R.Yakovlev, W.Ossau, J.Nürnbergger, W.Faschinger, G.Landwehr, T.Wojtowicz, G.Karczewski, and J.Kossut "*Optical method for determination of the 2D electron density in modulation doped QWs*" Phys. Rev. **B65**, 115310 (2002)
6. R.A.Suris, V.P.Kochereshko, G.V.Astakhov, D.R.Yakovlev, W.Ossau, J.Nürnbergger, W.Faschinger, G.Landwehr, T.Wojtowicz, G.Karczewski, J.Kossut "*Excitons and Trions Modified by Interaction with Two Dimensional Electron Gas*" Phys. Stat. Sol. **B227**, pp.343-352, (2001)

7. D. Andronikov, V. Kochereshko, A. Platonov, T. Barrick, S. A. Crooker, G. Karczewski «*Singlet and triplet trion states in high magnetic fields. Photoluminescence and reflectivity spectra in modulation doped CdTe/CdMgTe quantum wells*» Phys. Rev. **B72**, 165339, (2005)
8. J.J.Davies, D.Wolverson, V.P.Kochereshko, A.V.Platonov, R.T.Cox, J.Cibert, H.Mariette, C. Bodin, and C. Gourgon, E.V.Ubyivovk, Yu. P. Efimov, S. A. Eliseev «*Motional enhancement of exciton magnetic moments in zincblend semiconductors*» Phys. Rev. Lett. **97**, 187403 (2006)
9. V.P. Kochereshko, A.V. Platonov, A.S. Gurevich «*Optical anisotropy of cubic crystals, from bulk to quantum dots*» Journal of Luminescence V.**125**, No.1-2, 133-146, (2007)
10. L.C. Smith, J.J. Davies, D. Wolverson, S. Crampin, R.T. Cox, J. Cibert, H. Mariette, V.P. Kochereshko, M. Wiater, G. Karczewski, and T. Wojtowicz «*Motion-dependent magnetic properties of excitons in CdTe*» Phys. Rev. B **78**, 085204 (2008)
11. Davies J.J.; Smith L.C.; Wolverson D.; Gust A.; Kruse C.; Hommel D.; Kochereshko V.P. «*Motion-enhanced magnetic moments of excitons in ZnSe*» Phys. Rev. **B81**, №8, 085208 (2010)
12. Kochereshko V.; Besombes L.; Mariette H.; Wojtowicz T.; Karczewski G.; Kossut J. «*Spin properties of trions in a dense 2DEG*» Phys. Status Solidi **B247**, No. 6, 1531–1534 (2010) / DOI 10.1002/pssb.200983187
13. Gurevich,AS; Kochereshko,VP; Bleuse,J; Mariette,H; Waag,A; Akimoto,R «*Observation of interface carrier states in no-common-atom heterostructures ZnSe/BeTe*» Nanotechnology, v.**22**, 36, 365707 (2011)
14. Klochikhin,AA; Kochereshko,VP; Besombes,L; Karczewski,G; Wojtowicz,T; Kossut,J «*Plasmon mechanism of the trion emission band broadening in quantum wells*» Phys. Rev. B, v.**83**, 23, 235329 (2011)
15. Kats,VN; Kochereshko,VP; Platonov,AV; Chizhova,TV; Cirlin,GE; Bouravleuv,AD; Samsonenko,YuB; Soshnikov,IP; Ubyivovk,EV; Bleuse,J; Mariette,H «*Optical study of GaAs quantum dots embedded into AlGaAs nanowires*» Semicond. Sci. Technol., v.**27**, 1, 015009 (2012)
16. Kochereshko V.P.; Durnev M.V.; Besombes L.; et al. «*Lasing in Bose-Fermi mixtures*» Scientific Reports, v.6 ArtNo: #20091 (2016) *doi*: 10.1038/srep20091
17. L. V. Kotova, V. N. Kats, A. V. Platonov, V. P. Kochereshko, R. André, and L. E. Golub «*Magnetospatial dispersion of semiconductor quantum wells*» Phys. Rev. B **97**, 125302 (2018)

Additional Information

Supervising of PhD

Supervising of PhD during recent 5 years

ANDRONIKOV Dmitriy Alexandrovich (2013)

KATS Vladimir Naumovich (2015)

+10 Other PhD

Teaching experience

Lectures for magister students in Saint Petersburg State University

“Excitons in low dimensional structures” (2003 - present)

“Group theory for Solid state Physics” (start from 2018)

Lectures for PhD students in Ioffe Institute

“Optics of Semiconductors” (2015 - present)

Lectures in the University Grenoble Alps, France

“Excitons in nanostructures” (2014 - present)

Lectures in APhTU

“Optics of condense matter” (now)

Other

From the cite: <http://www.expertcorps.ru/science/whoiswho/ci86>

total number of citation=1586 hi=21

Cite of the group of Kochereshko

<https://www.youtube.com/watch?v=UPJJDpGCrcg>

http://www.ioffe.ru/DepSSO/Kochereshko_gr/