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PERSONAL DATA

Born on 6th July 1949 in Baku, Azerbaijan Republic.

EDUCATION AND ACADEMIC DEGREES OBTAINED

1966-1971- A master's degree in Physics, Baku State University, Azerbaijan.

1981- PhD in Physics. Dissertation title «Transport phenomena in semiconductor films with unlike surfaces».

1998- academic title of associate professor

2008- Doctor of Sciences. Dissertation title «Transport phenomena in lowdimensional electron systems».

2013- academic title of professor

COMPLETE PROFESSIONAL BACKGROUND

From 1973 until present - postgraduate student, lecturer, professor at Chair of Solid State Physics at the Physical Faculty of Baku State University, Azerbaijan, Baku.

1971-1973 - Engineer, Institute of Geology, Academy of Sciences, Azerbaijan, Baku.

Reads a course of lectures “Thermodynamics and statistical physics”, “Classical mechanics” and “Principles of low dimensional system Physics” for bachelors.

Reads a course of lectures “Quantum theory of solids” , “Metals and semiconductors physics”, “Quantum statistical mechanics”, “Physics of low dimensional electron systems” and «Solid state physics tasks» for masters.

PRESENT RESEARCH INTERESTS

Solid state quantum theory. Transport phenomena in lowdimensional electron systems.

PRESENT RESEARCH INTERESTS

- 2021 - 7th International Conference MTP-2021: Modern Trends in Physics, Baku, Azerbaijan.
- 2020 - “Actual Problems of Applied Physics and Energetics” II International Scientific Conference. Sumgait, Azerbaijan.
- Actual Problems of Applied Physics and Energetics
- 2019 - 2 Uluslararası GAP Matematik-Mühendislik FEN ve sağlık bilimleri kongresi. 21-23 Haziran Adıyaman Türkiye.
- 2019 - International Conference “Modern Trends in Physics”, Baku, Azerbaijan.
- 2018 - Turkish Physical Society 34th International Physics Congress, Bodrum, Turkey.
- 2017 - Conference at TSU, Tomsk, Russia.
- 2017 - International Conference “Modern Trends in Physics”, Baku, Azerbaijan.
- 2016 - Turkish Physical Society 32nd International Physics Congress, Bodrum, Turkey.
- 2015 - International Conference “Modern Trends in Physics” devoted to the 10 year celebration of Institute for Physical Problems of Baku State University”, Baku, Azerbaijan.
- 2014 - 16th International Conference on Thin Films, Dubrovnik, Croatia.
- 2013 - International Scientific Conference "Actual Problems of Physics" dedicated to the 80th anniversary of Academician B.M.Asgarov, Baku, Azerbaijan.
- 2013 - Turkish Physical Society 30th International Physics Congress, Istanbul.
- 2012 - EU FP7-INCO-2010 project “Elektronika və fotonika üçün nanotexnologiya platformaları”, Finland, Oulu.
- 2012 - International Conference on the Physics of Semiconductors 2012, Paris, France
- 2012 - 24th General Conference of the Condensed Matter Division of the European Physical Society, Edinburgh, Scotland, UK.
- 2012 - Turkish Physical Society 29th International Physics Congress, Bodrum, Turkey.
- 2010 - The 17th International Conference on Ternary and Multinary Compounds, Baku, Azerbaijan.
- 2010 - 18th International Vacuum Congress (IVC-18), China.
- 2009 - International scientific conference dedicated to the 90th anniversary of the Baku State University, Baku, Azerbaijan.
- 2009 - Turkish Physical Society 26th International Physics Congress, Bodrum, Turkey.
- 2009 - Международная конференция “Научно-технический прогресс и современная авиация”, Баку, Азербайджан.
- 2008 - 5th International Scientific and Technical Conference "Actual Problems of Physics", Baku, Azerbaijan.

2007 - Nano and Giga Challenges in Electronics and Photonics, Arizona.

2007 - AIP Conference, USA.

2006 - Australian Institute of Physics 17th National Congress.

2006 - Eighth International Symposium "Frontiers of Fundamental Physics" Madrid, Spain.

2006 - 3rd International Conference on "Technical and Physical Problems in Power Engineering", Gazi University, Ankara, Turkey.

2005 - International Scientific Conference "Fizika-2005" dedicated to the 60th anniversary of the Institute of Physics of the Academy of Sciences of Azerbaijan, Baku, Azerbaijan.

2003 - European Materials Research Society, Fall Meeting, Symposium D, Warsaw, Poland.

2002 - The Turkish Physical Society 21st Physics Conference (TFD 21), Isparta, Turkey.

2001 - The first Hellenic-Turkish International Physics Conference, Koc (Greece), Bodrum. (Turkey).

1997 - 11th International Conference on Ternary and Multinary Compounds, Salford, England.

LIST OF SELECTED PUBLICATIONS

Author of more than 120 scientific articles, 1 monograph and 2 textbooks for universities.

- **Figarova S.R.**, Guseinov G.I., Figarov V.R. Thermoelectric power hysteresis in parabolic quantum well Thin Solid Films. 2021, v.721, p.138554 (5) (Impact factor-2.183)
- **Figarova S.R.**, Figarov V.R. Negative Differential Resistance of Graphene Oxide/Sulphur Copmpound. Journal of Nano Research. 2021, Vol. 67, p.25-31. (Impact factor -3.06).
- **Figarova S.R.**, Figarov V.R. Vertical conductance in superlattice in strong magnetic field during inter- and intraband transitions. Russian Physics Journal, 2021, Vol.64, No. 5, p.949-955. (Russian Original Izvestiya Vysshikh Uchebnykh Zavedenii, Fizika, No. 5, p.161-165, May, 2021). (Impact factor - 0.84).
- Guliyev B.I., **Figarova S.R.**, Guseinov G.I., Figarov V.R. Semiparabolic quantum well electrical conductivity, European Physical Journal Plus, volume. 2019, 134, p.1-4, (Impact factor - 2.619).
- **Figarova S.R.**, G.I.Guseinov, Figarov V.R. Magnetothermoelectric properties of layered structures for in impurity scattering, Superlattices and Microstructures volume. 2018, 117, p.469-475, (Impact factor - 2.1)

- **Фигарова С.Р.**, Гусейнов Г.И, Фигаров В.Р. Поперечный эффект Нернста-Эттингсгаузена в сверхрешетках при электронном рассеянии. Физика и техника полупроводников, том 52, в.7, 2018, с.712-717 (Impact factor - 0.672).
- **Figarova S.R.**, Mahmudov M.M. Dependence of thermoelectric power of quantum well with complex profile on Fermi level. Proceedings Books of International Conference “Modern Trends in Physics”, Baku, 20-22 April 2017, p.122-124, (ISSN 2522-4352).
- **Figarova S.R.**, Hasiyeva G.N. and Figarov V.R., Negative differential conductivity in quantum well with complex potential profile for electron-phonon scattering. Physica E: Low-dimensional Systems and Nanostructures. 2016, 78, p.10-13. (Impact factor - 1.904)
- **Figarova, S.R.**, Figarov V.R Negative reflection in *GaP* single crystals. Optical and Quantum Electronics. 2016, 48, 10, p.452-457. (Impact factor - 1,290).
- **Figarova, S.R.**, İsmayilov T.H. Hasiyeva G.N. Electrical conductivity of a Nondegenerate electron Gas with a complex shaped quantum well. Journal of the Korean Physical. 2016, V.69. N.8. p 1310-1313 (Impact factor - 0.445)
- **Figarova, S.R.**, Hasiyeva, G.N. and Figarov, V.R., 2015. Thermodynamic properties of electron gas in complex-shaped quantum well. Physica E: Low-dimensional Systems and Nanostructures, 2015, 69, p.24-26 (Impact factor - 2.0)
- Askerov B.M., **Figarova S.R.**, Guseinov G.I. Magnetoresistance in quasi-two-dimensional electron gas at scattering in impurity ions. Physica Status Solidi, 2014, v. 251, №6, p.1197-1201.
- Askerov B.M., **Figarova S.R.**, Mahmudov M.M., Figarov V.R. Entropy of Superlattices in a Quantized Magnetic Field. Japanese Journal of Applied Physics, 2011, 50, 05FE10-1-05FE10-2. (Tokyo, Japan), (ISSN 0021-4922), (Impact factor - 1.471).
- Askerov B.M., **Figarova S.R.**, Makhmudov M.M., Figarov V.R. Diamagnetism of an electron gas in superlattices, Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, p.3213-3218, (London, UK), (ISSN 0370-1662), (Impact factor - 2.818).
- Askerov B.M., **Figarova S.R.**, Mahmudov M.M. Longitudinal magnetoresistance of layered crystals in a quantizing magnetic field taking into account the spin splitting. Physica E: Low-Dimensional Systems and Nanostructures, 2006, v.33, Iss.2, p.303-307, (Amsterdam, Netherlands), (ISSN1386-9477), (Impact factor - 2.01).
- **Figarova S.R.**, Negative longitudinal magnetoconductivity in layered crystals in a quantizing magnetic field taking into account spin splitting. Physica Status Solidi, (Germany, Berlin), 2006, v.243, №6, p.R41-R43 (Impact factor - 1.605).

BOOKS AND MONOGRAPHS

B.M.Askerov, **S.R.Figarova**. Thermodynamics, Gibbs Method and Statistical Physics of Electron Gases. Springer-Verlag, Berlin, Heidelberg, 2010, 374 p.

S.R.Figarova. “Tasks on thermodynamics and the statistical physics”, Baku, 2012, 247 p. (textbook, azerb.)

INTERNATIONAL AND DOMESTIC GRANTS, PROGRAMS

2015-2016 - Grant N EIF-2013-9(15)-46/04-1) “Nonlinear optical features of nanostructures and phase effects in metamaterials”.

2012 - EU FP7-INCO-2010-6 Project “Nanotechnological platforms for electronics and photonics”. Finland, Oulu.

AWARDS AND HONORARY TITLES

2019 - By order of the President of the Republic of Azerbaijan, she received the Honorary title of “Honored Teacher”.

2019 - According to the order of the Minister of Education of the Republic of Azerbaijan, she was awarded the jubilee medal of the Republic of Azerbaijan “100th anniversary of Baku State University (1919-2019)”.