

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Shahmardan Amirov
Nationality: Azerbaijani
Date of birth: 10. 02. 1960
Marital status: Married
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EDUCATION

Since 1918	Doctorate post graduate courses. Baku State University
1990-1986	Postgraduate courses at the Institute of Physics of ANAS Baku city.(1987-1991) Ph.D (candidate of Physical and Mathematical sciences): Specialty- Semiconductors and dielectrics.
1985-1987	Two years language (English) courses at Azerbaijan Institute of Languages (1985-1987)
1982-1977	Baku State University, Faculty of Physics, Specialty- Theory of Solids
1977-1967	Secondary school

WORK EXPERIENCE

1996-present	Associate prof. at Azerbaijan Medical University, Department of Medical band Biological Physics
11.03.1994-26.09.1996	Head of laboratory at Azerbaijan Medical University, Department of Medical Physics and Informatics
09.11.1988-10.03.1994	Senior laboratory assistant at Baku State University, Department of General Physics
03.02.1986-05.11.1988	Engineer at Special Design Bureau of Institute of Physics
24.09.1982-27.01.1986	Engineer at the Office for the active actions on environmental medium.

Research Interests:

- Three- and four wave nonlinear interactions in metamaterials
- Semiconductor materials and devices
- Medical electronic devices
- Circuit Theory
- Radio-engineering

Grant Activity

- Grant of **International Scientific Foundation** (New York) 1993 year.

- STCU -Azerbaijan Bilateral Grant (Funded by Canadian Government) , 240000 US \$, Radio-ecological exploration of territories of Apsheron peninsula around Baku city 2009-2012 (**Baku State University**)

- ***Teaching experience***

- Course “Medical and Biological Physics”, lectures and seminars – Azerbaijan Medical University 1994 – present
- Course “ Medical Electronics “-Azerbaijan Medical University 1994 – present
- Course “High Mathematics”, lectures and seminars – Azerbaijan Medical University
- Course “Elementary Physics” – Azerbaijan Medical University 1994-present
- Course “ General Physics”- Qafqaz University, 2005-2007
- Course “ Physics-1”- Qafqaz University 2005-2007
- Course “ Medical Electronics”-Azerbaijan International University, 2001-2005
- Course “Nonlinear optics”-Baku-State University, 1992-1994
- Course “ Electronics”- Khazar University 2008-2012
- Course “ Physics-2” –Khazar University 2008-2012
- Course “ Radioequipment” –Khazar University
- Course “General Physics”- Khazar University.
- Course “Thermodynamics” –Khazar University.-present
- Course “Electrical Communication Theory”-Khazar University.-present
- Course “ Radiophysics”-Khazar University-present
- Course “ Electrical measurement devices”-Khazar University.
- Course “ Optics”-Khazar University
- Course “ Electromagnetic Theory”-Khazar University-present
- Course “ Circuit Theory”-Khazar University-present

- ***Papers***- more than 50

Books (1-azeri, 2-6 in English)

1. Kvant elektronikasından praktikum – BDU,1992, 120 s.
2. Brief dictionary of general and medical physics(English-Russian-Azeri), 2005, 160 p.
3. Laboratory Practice in Medical and biological physics ,2008,120 p.
4. Problems in Medical and biological Physics,2010, 100 p.
5. Lectures in Medical and Biological Physics, 2010, 283 p.
6. Elementary Physics, 2012, 292 p.

Selected Papers:

1. Эффективность параметрической генерации света в приближении заданной интенсивности // **Квантовая электроника** 1989 т.16 вып. 11 с. 2243-2247
2. Преобразование частоты ультракоротких импульсов во внешнем резонаторе // **Оптика и спектроскопия** 1990, т.69 вып.3 с.678-683.
3. Генерация высших гармоник в приближении заданной интенсивности // **Квантовая электроника** 1990 Т.17 N.12 с. 1632-1634 .
4. К теории каскадной генерации третьей гармоники // **Квантовая электроника**, 1991, т.18 N6 с.715-717.
5. Phase effects in multistage fourth-harmonic generation// **Quantum Electronics**, 1992, v.19, N1 p.53-55.
6. Генерация третьей гармоники в последовательно расположенных нелинейных кристаллах // **Оптика и спектроскопия**. 1992, том 73, вып. 3 с.578-582.

7. . Генерация третьей гармоники во внешнем резонаторе// *Оптика и спектроскопия* 1992 т. 73 вып. 3 с.583-587.
8. Теория внутрирезонаторной генерации второй гармоники в приближении заданной интенсивности *Оптика и спектроскопия* 1993 т. 75 вып. 4 с.908-913.
9. Cascade generation of the third harmonic in a laser cavity *Quantum Electronics* 1994, V.24 , No.10, p. 903-904
10. Erbium-doped zinc oxide films at different temperatures. *Proceed. of Inter-nat.Scientific – practical confe-rence. Prague, 2016* p.74-77
11. On influence of temperature and doped concentrations on the frequency conversion efficiency in erbium doped zinc oxide films. *American Journal of Optics and Photonics* 2016, V. 4, No 6, p.57-63
12. Phase effects of the parametric interaction in metamaterial. *Journal of Russian Laser research. Vol.38, No.4, July.2017.* p.211-218
13. Parametric interaction of optical waves in Metamaterials under low- frequency pumping *Quantum Electronics* Vol.47, No.7, 2017, p.655-660
14. Interaction of waves in Metamaterials at low –frequency pumping *X111 International Scientific Conference European research* p.16-18 2017
15. Четырехволновое взаимодействие в нелинейной среде с отрицательным преломлением (higher frequency pumping) Москва *Научный форум Технические и физико-математические науки* N 9 (10),2017
16. Frequency transformation of ultrafast laser pulses in metamaterials. *Superlattices and microstructures* 2018
17. Four wave mixing in metamaterials *Russian Physics Journal* V. 61, N 9 p.1559-1568 (2019)
18. Self-action effects in the constant intensity approximation *VIII International Scientific and Practical Conference “ Science and Practice: Implementation to modern society “ (December 26-28, Manchester, Great Britain, p. 1212-1214 (2020)*
19. Amirov Sh.Sh. Four wave interaction in the constant intensity approximation // *AJP “Fizika”(EN)*, – Baku: – 2021, 27(1), – p.8-12.
20. Amirov Sh.Sh. Spectrum of laser pulses in the first order dispersion theory// *AJP “Fizika”(EN)*, – Baku: – 2021. 27(2), – p.1-5.
21. Amirov Sh.Sh. Effect of phase mismatch on the energy of ultrashort laser pulses in a Fabry-Perrot cavity // *AJP “Fizika” (EN)*, – Baku: – —2021. 27(4), —p.37-40.
22. Amirov, Sh. Sh., Effect of refractive inhomogeneity on the efficiency of SHG in optical fiber // *ICLLT-2, –Gazi University, –Turkey, may 27, –2021, – p.127-130.*
23. Amirov, Sh. Sh., Frequency conversion in optical fiber // Collection of research papers of scientific and practical conference “**Current issues of Biomedical sciences**” – Kharkov, **KHIMU –2021, – p.18-20.**
24. Laser pulse manipulation in optical fiber – “News of Baku University”, Series of physico-mathematical sciences 2021, v. XXVII, № 1
25. Amirov, Sh. Sh. On the theory of parametrical interaction of laser pulses in metamaterial // *AJP “Fizika”(EN)*, – Baku: – 2022. 27(1), – p.13-17.
26. Kasumova, R. J., Amirov, Sh. Sh. Nonstationary sum frequency generation in inhomogeneous optical fiber // *AJP “Fizika”(EN)*, – Baku: – 2022. 27(2), – p.24-30.

27. Amirov, Sh. Sh., Kasumova, R. J., Safarova, G. A., Akhmadova, A. R., Kerimli N. V. Sum frequency generation in the constant intensity approximation // **COIA2022, – Baku, 24-26 august – 2022**, – p.273-275.
28. Amirov, Sh. Sh., On the theory of dispersion interferometer with two nonlinear crystals // **AJP “Fizika”(EN)**, – Baku: – 2022. 28(3), – p.27-29.
29. Амиров, Ш. Ш. On the theory of intra-cavity dispersion interferometer // **AJP “Fizika”(EN)**, – Baku: – 2022. 28(4), – p.46-49.
30. Kasumova, R. J., Amirov, Sh. Sh., On the theory of four-wave interaction in dissipative metamaterials // **AJP “Fizika”(EN)**, – Baku: – 2022. 28(4), –p.50-56.
31. Theoretical and experimental study of dielectric polarization in thermotropic monomer and polymer liquid crystals with re-entrant mesomorphic modification. ANAS, AJP, “Fizika”(EN), 2022, v. XXVIII, №4 p.28-31.
32. On the theory of third harmonic generation in a Fabry-Perot cavity ANAS, AJP, “Fizika”(EN), 2023, v. XXIX, №3 p.43-45.

Computer skills: Windows, Excel, Internet

Languages

Azeri - Advanced
Russian - Advanced
English - Advanced