Amir Fathi
Department of Physics
Semnan University
Semnan, Semnan, Iran

Personal Information

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Date of Birth:	Apr.20,1984
Citizenship:	Iran

Research Interests

Condensed Matter Physics (CMP):
◇Theoretical Condensed Matter
◇Soft Condensed Matter
◇Growth and Charactrization of Semiconductors and Superconductors
◇Optical Cloaking devices using metamaterials

Education

2003-2008   *Bachelors Degree*:
◇**Major:** Solid State Physics
◇**University:** Shahid Beheshti University (SBU), Evin, Tehran, Iran.
◇**GPA:** 13.7/20 (Stuent's GPA of the Department: 12.29/20)

2008-2010   *Master Degree:*
◇**Major:** Solid State Physics (Crystal Growth)
◇**University:** Semnan University, Semnan, Iran.
◇**GPA:** 15.04/20

Rewards & Honors

Sep. 2003   ◇Rewarded to study free academic education by qualifying in top 1% of about 450000 participants in Iran's National Universities Entrance Exam.

Projects & Publications

2003-2008 *Undergraduate:*
◇A Quick Review Over Photoelectric Effect and its History.
◇How Semiconductors Work, An Introduction.
◇Caculating and Modeling the Projectile Motion with Drag Force using Mathematica Software.

2008-2010 *Graduate:*
◇Introduction to Chernov Bulk Diffusion Model.
◇Vapor Phase Crystal Growth & Epitaxy (Which covers CVD[1], CVT[2], PVD[3] and PVT[4] in Vapor Growth and MOVPE[5] and HVPE[6] in Vapor Epitaxy).
◇Poster on "Growth of $ZnS_{0.3}Se_{0.7}$ Single Crystal by Chemical Vapor Transport Technique Using Iodine as Transporting Agent under Thermodynamical Optimum Condition".

Academic Experience

2008-*Present* *Research Assistance:*
◇Synthesis, Charactrization and Analysis of $CoFe_2O_4$ nanoparticles.
◇Synthesis, Growth, Analysis and Charactrization of $ZnS_x Se_{1-x}$ Bulk Single Crystals.

2008-2011 *Laboratory Experiences:*
◇Worked with different kind of furnaces (mainly 3 zones), Vaccume Machines, Thermocouples, Teperature controllers, UV-Vis Machines, Powder X-Ray Diffraction Data Refinement & Fitting Softwares.

Work Experience

2003-2009 *Educational Experiences:*
◇As a Private Teacher, Teaching Physics, Mathematic, Calculus, English and elementry Electronics for teenagers.
◇Consulter in Ghalamchi Institute for student intended to take part in Iran universities entrance exam.
◇As a Translator (English to Persian), specially for technical Physics related papers and documents
◇As a Typist (Typing thesis and papers in Physics Department using TEX engine)

2001-2010 *Others:*
◇As a Salesman, Selling Electronical devices and species, Transistors, Resistors, ICs, etc.
◇As a Salesman, Consulter and Installer in a Samsung and Panasonic Air Conditioner reseller.
◇As a Salesman, Consulter and repairman in a Computer Shop
◇As an interpreter (English to Persian and vice versa)

Conffernce Attended

Jan. 2009 Symposium on Quantum Computing and Quantum Information Attended Processing and Experimental Aspects of Quantum Computing - Shahid Beheshti University (IRI) and Kinki University (JPA)- Tehran, Iran.

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[1]Chemical Vapor Deposition
[2]Chemical Vapor Transport
[3]Physical Vapor Depostion
[4]Physical Vapor Transport
[5]Metalorganic vapour phase epitaxy
[6]Hydride Vapor Phae Epitaxy

Sep. 2010   Anual Physics Conference of Iran held by The Physics Society of Iran, Bu-Ali Sina University, Hamedan, Iran.

Technical Skills

Computer Proficiency:
◇**Programming**: Fortran 90, Mathematica, Maple, MATLAB, DOS, Java, Visual C++, C#.Net.
◇Typesetting: TEX & LATEX Engine (LyX, WinEdit, TEX Maker, TEX Works, BaKoMa TEX Word), OpenOffice.org, and Microsoft Office Suite.
◇**Operating Systems**: Linux (ubuntu, RedHat/Fedora, Open Suse, Debian), Mac OS X, Android and Microsoft Windows (98, ME, XP, Vista & 7).
◇**Web Designe**: cPannel Modules, Joomla (CMS), Adobe fire works, Adobe Flash, Adobe Dream Weaver, MS Front Page, Kompozer, MySQL, HTML, CSS.
◇**Graphic Designe**: Adobe Photoshop, 3ds Max Studio, Blender, Gimp.
◇**Scientific Softwares**: Ansys 12 (Fluent and Gambit), PDF2 (XRD Data Base), Cambridge Crystallographic Data Base, FullProf Suit, MAUD[7], Origin.
◇**Music Production Softwares**: Fruity Loops Studio, Propellerhead Reason, Steinberg Nuendo, Pro Tools, Ableton Live, Cakewalk Sonar, Guitar Pro.
◇10-fingers typing capability (Sometimes faster than writing).
◇I am also very familiar with the computer Hardwares.

Language Proficiency:
◇Persian (Native)
◇English (Fluent)
◇Spanish (Español) (Intermediate)
◇Arabic (Intermediate)
◇German (Deutsch) (Intermidiate)

Musical Skills: (Instruments I am able to play)
◇Classical Guitar
◇Electric Guitar
◇Bass Guitar
◇Harmonica
◇Keyboard & Synthesizer

Extracurricular Activities

Philosophy:
◇Critical Philosophy, Natural Philosophy, Philosophy of Social Behaviour, Philosophy of Mind Literature & Music

Literature & Music:
◇General poetry (From any language)
◇Listening to Classical, Rock, Blues, Jazz, Salsa, Celtic, Chanson and Electronic music
◇Playing Classical and Rock music

Sport:
◇Mount Climbing, Chess, Jogging & Running, Tennis, Ping Pong, Daily Exercise

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[7]Material Analysis Using Diffraction