



A. Ramazani

**Academic Position Assistant Professor**

Qualifications B.A. in Physics, University of Isfahan, Iran, 1990

M.Sc in Solid State Physics, University of Tarbiat Modarres, Tehran, Iran, 1993

Ph.D. in Solid State Physics, Shiraz university, 2000

**Research Areas**

Statistical mechanics and magnetic nanowires.

**Courses**

1-Statistical mechanics

2- Thermodynamics

3-Computational physics

4- Mathematical Physics

6- Fabrication methods in Nanotechnology

**M.Sc Student**

1- A. Nazari, graduated

2- R. Golipour , graduated

3- H. Kaviani, graduated

4- M. Meshki, graduated

5- S. Erfanifam, graduated

6- V. Esfahani, graduated

7- M. Hajaligol, graduated

8- M. Noormohammadi, graduated

9- S. Qanbari, graduated

10- F. Eshaghi, graduated

11- Y. Miami, graduated

12- G. Torkashvand, graduated

13- A. Karimzadeh, graduated

14 – M. Mohammadniaee graduated

15 – K. Maleki, graduated

16 – M. Zanguri, graduated

**Ph.D Student**

1-M. Ghaffari, in working

**Publications**

1) Effect of composition on the magnetic behavior of  $Gd_2X$  compound, A. Yazadani and A. Ramazani, Journal of science of Islamic Republic of Iran, (1998) 273

2) Critical properties of  $S > 1/2$  Ising chains with long range interactions, M. Barati and A. Ramazani, Physical Review B (2000) 62, 12130.

- 3) Magnetic phase diagram of an alternating Ising chain with long range interactions, M. Barati and A. Ramazani, *Physical Review B*, (2001) 64, 24408
- 4) Classical phase diagram of  $S > 1/2$  Ising chains with long range interactions :finite range scaling, M. Barati, A. Ramazani, *Physical Review B*, (2002), 12406
- 5) The coherent anomaly study of  $S > 1/2$  Ising chains with long range interactions A. Ramazani, *Journal of Science & Technology* (2005) 319
- 6) The effect of temperature and concentration on the self organized pore formation in anodic alumina, M. Almasi and A. Ramazani, *J. Phys. D: Appl. Phys.* **38** (2005) 2396–2399
- 7) The influence of the oxalic acid concentration on the ordering of pore formation during long time anodization of anodic alumina, A. Ramazani, M. Almasi Kashi, A. Khayyatian and R. Golipour, *IJNN*, 2,(2006) 1.
- 8) The influence of the ac electrodeposition conditions on the magnetic properties and microstructure of Co nanowire arrays, M Almasi Kashi, A Ramazani and A, Khayyatian, *J. Phys. D: Appl. Phys.* **39** (2006) 4130–4135
- 9) The effect of pH and composition of sulfuric-oxalic acid mixture on the self ordering configuration of high porosity alumina nanohole array, M. Almasi Kashi, A. Ramazani, M. Rahmandoust and M. Noormohammadi *J. Phys. D: Appl. Phys* **40** 4625 2007
- 10) Optimized microstructure and magnetic properties in arrays of ac electrodeposited Co nanowires induced by the continuous and pulse electrodeposition A Ramazani, M Almasi Kashi, M Alikhani and S Erfanifam, *J. Phys. D: Appl. Phys* **40** 5533 2007
- 11) Optimum self-ordered nanopore arrays with 130–270 nm interpore distances formed by hard anodization in sulfuric/oxalic acid mixtures, M. Almasi Kashi, A. Ramazani, M. Noormohammadi, M. Zarei and P. Marashi. *J. Phys. D: Appl. Phys.* **40** (2007) 1–9
- 12) Fabrication of high aspect ratio Co nanowires with controlled magnetization direction using ac and pulse electrodeposition, A. Ramazani\*, M. Almasi Kashi, M. Alikhani, S. Erfanifam, *Materials Chemistry and Physics* 112 (2008) 285–289
- 13) The effect of growth rate enhancement on the magnetic properties and microstructures of ac electrodeposited Co nanowires using non-symmetric reductive/oxidative voltage, M. Almasi Kashi, A. Ramazani, M. Ghaffari, V. B. Isfahani

14) Fabrication of Self-Ordered Nanoporous Alumina with 69-115 nm Interpore Distances in Sulfuric/Oxalic Acid Mixtures by Hard Anodization, Mohammad Almasi Kashi, Abdolali Ramazani, Yashar Mayama1, and Mohammad Noormohammadi, Japanese Journal of Applied Physics 49 (2010).

15) The influence of crystallinity enhancement on the magnetic properties of ac electrodeposited Fe nanowires, A Ramazani, M Almasi Kashi, V Bayzi Isfahani and M Ghaffari, Appl Phys A, 98, 691–697(2010).

16) Microstructures and magnetic properties of as-deposited and annealed  $\text{Fe}_x\text{Co}_{1-x}$  alloy nanowire arrays embedded in anodic alumina templates, M. AlmasiKashi, A.Ramazani, F.Eshaghi, S.Ghanbari, A.S.Esmaeily, Physica B, (2010).

17) Self-ordering of anodic porous alumina fabricated by accelerated mild anodization method, M. Almasi Kashi, A. Ramazani, M. Raoufi, A. Karimzadeh' (in revision on thin solid film).

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۱۸) ساختار نمار شکست آلومینا در بلور نوری آلومینای حفره‌دار، ارایه شده در کنفرانس فوتونیک ایران ۱۳۸۴

۱۹) نقش ناهمسانگردیهای بلوری و شکلی بر خواص مغناطیسی نانوسیم‌های کبالت و نیکل

روح ا... گلی پور، علی خیاطیان، عبدالعلی رضانی، محمد الماسی کاشی، مجله پژوهش فیزیک، تابستان ۱۳۸۶، جلد ۷ شماره ۲

۲۰) تعیین تابع توزیع بهینه نمار شکست و عمق نفوذ آنیونها در بلور نوری آلومینای حفره دار، حمیده کاویانی، عبدالعلی رضانی و محمد الماسی کاشی در دست مجله پژوهش فیزیک، پاییز ۱۳۸۶، جلد ۷ شماره ۳

۲۱) نانوحسگرهای گازی بر اساس نانوحفره های آلومینای ساخته شده به روش آندیزاسیون سخت برای حسگری رطوبت در دمای اتاق؛ زارعی، مجید؛ الماسی کاشی، محمد؛ رضانی، عبدالعلی؛ ترکاشوند، غفار در دست چاپ مجله پژوهش فیزیک

## CONFERENCE PAPERS

- 1) Fabrication Of Copper Nano-Probe Array In Porous Anodic Alumina  
Zareei M. , Noormohammadi M. , Almasi Kashi M. , Ramazani A.A.  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 2) The Effect of Frequency in the AC Electrodeposition on the Magnetic properties and Microstructure of Iron Nanowires  
V.Isfahani , A.Ramazani and M.Almasi Kashi  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 3) The effect of pH and composition of sulfuric-oxalic acid mixture on the self ordering configuration of high porosity alumina nanohole array  
M. Almasi Kashi, A. Ramazani, M. Rahmandoost  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 5) The influence of the unsymmetrical ac electrodeposition technique on the magnetic properties and microstructure of Co nanowire arrays  
M.Ghaffari, M.Almasi Kashi and A.Ramazani  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 6) The Effect of pH and Frequency in the AC Electrodeposition on the Magnetic properties and Microstructure of Cobalt Nanowires  
M.Alikhani, M.Almasi Kashi and A.Ramazani  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 7) Fabrication of two dimensional photonic crystals based on hard anodization method and its optical investigations  
M. Noormohammadi, M. Zarei, A. Ramazani and M. Almasi Kashi  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 8) The effect of pulse shape electrodeposition in anodic aluminum oxide on the magnetic properties of Co nanowires  
S.Erfanifam , A.Ramazani and M.Almasi  
The second nanotechnology student conference 5-7 September 2007 Kashan, Iran
- 9) Fabrication of high aspect ratio Co nanowires with controlled magnetization direction using ac and pulse electrodeposition  
A. Ramazani\*, M. Almasi Kashi, M. Alikhani, S. Erfanifam Materials Chemistry and Physics 112 (2008) 285–289
- 10) The effect of the pulse shape and length of the wire on the microstructure and magnetic properties of the pulsed electrodeposition Co nanowires  
S. Erfanifam <sup>a</sup> S. Erfanifam <sup>b</sup> A Ramazani and M Almasi Kashi  
Proceedings of the 2<sup>nd</sup> Conference on Nanostructures (NS2008)  
March 11-14, 2008, Kish University, Kish Island, I.R. Iran
- 11) Fabrication of two dimensional grating based on nanoporous alumina arrays using hard and mild anodization technique

M. Noormohammadi, M. Zarei, A. Ramazani and M. Almasi Kashi

Proceedings of the 2<sup>nd</sup> Conference on Nanostructures (NS2008)  
March 11-14, 2008, Kish University, Kish Island, I.R. Iran

12) The Influence of the ac Electrodeposition Conditions on the Magnetic Properties of Ni Nanowire Arrays *M. Almasi kashi A. Ramazani, R. Golipour*  
First International Congress on Nanoscience and Nanotechnology  
Faculty of Engineering , University of Tehran December 2006

### طرحهای پژوهشی خاتمه یافته

- ۱) ساخت نانوسیمهای مغناطیسی کبالت و کبالت پلاتین
- ۲) طراحی و ساخت مغناطومتر گرادیان نیروی متناوب
- ۴) طراحی و ساخت مغناطومتر نمونه مرتعش
- ۵) ساخت و آنالیز و شبیه سازی شبکه های نوری بر اساس نانوحفره های آلومینا (طرح تحقیقاتی استانی)

### تاسیس شرکت دانش بنیان

در راستای عدم وابستگی به بیگانگان اقدام به ساخت دستگاههای مغناطومتر نموده و شرکت دانش بنیان مغناطیس دقیق را تاسیس نموده است. هم اکنون ابزارهای دقیق این شرکت در چندین دانشگاه کشور به رشد پژوهش کمک میکند.