

Assoc. Prof. HÜSEYİN KURT

Personal Information

Office Phone: [+90 216 280 3443](tel:+902162803443)

Email: huseyin.kurt@medeniyet.edu.tr

Web: <http://scholar.google.com.tr/citations?hl=en&user=fsa-lyMAAAAJ>

Address: İstanbul Medeniyet Üniversitesi, Ünalın Mah, Ünalın Cd, E5 Karayolu Üstü, Üsküdar /İstanbul

Education Information

Doctorate, Michigan State University, College Of Arts And Sciences, Physics And Astronomy, United States Of America
2000 - 2005

Undergraduate, Boğaziçi Üniversitesi, Fen Edebiyat Fakültesi, Fizik, Turkey 1994 - 1999

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, STUDIES OF CURRENT-PERPENDICULAR-TO-PLANE MAGNETORESISTANCE (CPP-MR) AND CURRENT-INDUCED MAGNETIZATION SWITCHING (CIMS), Michigan State University, Faculty Of Arts And Sciences, Physics Department/ Condensed Matter Physics, 2005

Research Areas

Electrical and Electronics Engineering, Electromagnetic, Electric and Magnetic Fields, MEMS, Dielectric Materials and Devices, Magnetic Materials and Devices, Semiconducting Materials and Devices, Metallurgical and Materials Engineering, Material science and engineering, Material Characterization, Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Structure of Liquids and Solids; Crystallography, Transport Phenomena in Condensed Matter, Surfaces, Interfaces, Thin Films and Nanosystems, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electronic structure of bulk material, Magnetic Properties and Materials, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Lecturer PhD, University Of Dublin-Trinity College, Faculty Of Engineering, Mathematics And Science, School Of Physics, 2007 - 2012

Lecturer PhD, Harvard University, School Of Engineering And Applied Sciences, Rowland Institute, 2005 - 2007

Research Assistant, Michigan State University, College Of Natural Science, Physics And Astronomy, 2001 - 2005

Courses

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Local long-distance spin transport in single layer graphene spin filter**
DEMİRÇİ E., Dadashbaba M., KURT H.
AIP ADVANCES, vol.8, no.5, 2018 (Journal Indexed in SCI)
- II. **Short Naphthalene Organophosphonate Linkers to Microporous Frameworks**
Bulut A., ZORLU Y., Worle M., Cetinkaya A., KURT H., Tam B., Yazaydin A. O. , Beckmann J., Yucesan G.
CHEMISTRYSELECT, vol.2, no.24, pp.7050-7053, 2017 (Journal Indexed in SCI)
- III. **Coaxial-heater hollow cathode**
KURT H., Kokal U., Turan N., ÇELİK M.
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.88, no.6, 2017 (Journal Indexed in SCI)
- IV. **A potential Cu/V-organophosphonate platform for tailored void spaces via terpyridine mold casting**
Bulut A., Worle M., ZORLU Y., KİRPİ E., KURT H., Zubieta J., Grabowsky S., Beckmann J., Yucesan G.
ACTA CRYSTALLOGRAPHICA SECTION B-STRUCTURAL SCIENCE CRYSTAL ENGINEERING AND MATERIALS, vol.73, pp.296-303, 2017 (Journal Indexed in SCI)
- V. **Rational Design of Two-Dimensional Bimetallic Wave Structures from Zigzag Chains via Site-Specific Coordination around the 2,6-Naphthalenediphosphonic Acid Motif**
Bulut A., ZORLU Y., Worle M., PAŞA S., KURT H., Zubieta J., Beckmann J., Yucesan G.
EUROPEAN JOURNAL OF INORGANIC CHEMISTRY, no.21, pp.3506-3512, 2016 (Journal Indexed in SCI)
- VI. **Macrocyclic Cu(II)-organophosphonate building block with room temperature magnetic ordering**
Bulut A., Zorlu Y., Topkaya R., Aktaş B., Doğan S., KURT H., Yücesan G.
DALTON TRANSACTIONS, vol.44, no.28, pp.12526-12529, 2015 (Journal Indexed in SCI)
- VII. **Conductance enhancement due to interface magnons in electron-beam evaporated MgO magnetic tunnel junctions with CoFeB free layer deposited at different pressure**
Guo P., Li D. L. , Feng J. F. , Kurt H., Yu G. Q. , Chen J. Y. , Wei H. X. , Coey J. M. D. , Han X. F.
JOURNAL OF APPLIED PHYSICS, vol.116, no.15, 2014 (Journal Indexed in SCI)
- VIII. **Cubic Mn₂Ga Thin Films: Crossing the Spin Gap with Ruthenium**
Kurt H., Rode K., Stamenov P., Venkatesan M., Lau Y. -, Fonda E., Coey J. M. D.
PHYSICAL REVIEW LETTERS, vol.112, no.2, 2014 (Journal Indexed in SCI)
- IX. **CoTaZr/Pd multilayer with perpendicular magnetic anisotropy**
Lau Y., KURT H., Coey J. M. D.
APL MATERIALS, vol.1, no.2, 2013 (Journal Indexed in SCI)
- X. **Site-specific order and magnetism in tetragonal Mn₃Ga thin films**
Rode K., Baadji N., Betto D., Lau Y., Kurt H., Venkatesan M., Stamenov P., Sanvito S., Coey J. M. D.
PHYSICAL REVIEW B, vol.87, no.18, 2013 (Journal Indexed in SCI)
- XI. **Very low 1/f barrier noise in sputtered MgO magnetic tunnel junctions with high tunneling magnetoresistance**
Feng J., Chen J., KURT H., Coey J. M. D.
JOURNAL OF APPLIED PHYSICS, vol.112, no.12, 2012 (Journal Indexed in SCI)
- XII. **Exchange-biased magnetic tunnel junctions with antiferromagnetic epsilon-Mn₃Ga**
Kurt H., Rode K., Tokuc H., Stamenov P., Venkatesan M., Coey J. M. D.
APPLIED PHYSICS LETTERS, vol.101, no.23, 2012 (Journal Indexed in SCI)
- XIII. **Influence of growth and annealing conditions on low-frequency magnetic 1/f noise in MgO magnetic tunnel junctions**
Feng J., Diao Z., KURT H., Stearrett R., Singh A., Nowak E. R. , Coey J. M. D.
JOURNAL OF APPLIED PHYSICS, vol.112, no.9, 2012 (Journal Indexed in SCI)
- XIV. **Tunable coercivity in perpendicular (CoFe/Tb)(n)/CoFe multilayers**
Feng J. F. , Kurt H., Venkatesan M., Coey J. M. D.

THIN SOLID FILMS, vol.520, no.24, pp.7173-7175, 2012 (Journal Indexed in SCI)

- XV. **Magnetic and electronic properties of D0(22)-Mn₃Ge (001) films**
Kurt H., Baadji N., Rode K., Venkatesan M., Stamenov P., Sanvito S., Coey J. M. D.
APPLIED PHYSICS LETTERS, vol.101, no.13, 2012 (Journal Indexed in SCI)
- XVI. **Field sensing in MgO double barrier magnetic tunnel junctions with a superparamagnetic Co₅₀Fe₅₀ free layer**
Yu G. Q., Feng J. F., Kurt H., Liu H. F., Han X. F., Coey J. M. D.
JOURNAL OF APPLIED PHYSICS, vol.111, no.11, 2012 (Journal Indexed in SCI)
- XVII. **Spin-dependent tunneling spectroscopy in MgO-based double-barrier magnetic tunnel junctions**
Yu G. Q., Kurt H., Feng J. F., Xu K., Coey J. M. D., Han X. F.
JOURNAL OF APPLIED PHYSICS, vol.111, no.7, 2012 (Journal Indexed in SCI)
- XVIII. **Mn_{3-x}Ga (0 ≤ x ≤ 1): Multifunctional thin film materials for spintronics and magnetic recording**
Kurt H., Rode K., Venkatesan M., Stamenov P., Coey J. M. D.
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.248, no.10, pp.2338-2344, 2011 (Journal Indexed in SCI)
- XIX. **Electric field induced changes in the coercivity of a thin-film ferromagnet**
Fowley C., Rode K., Oğuz K., Kurt H., Coey J. M. D.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.44, no.30, 2011 (Journal Indexed in SCI)
- XX. **1/f noise in MgO double-barrier magnetic tunnel junctions**
Yu G. Q., Diao Z., Feng J. F., Kurt H., Han X. F., Coey J. M. D.
APPLIED PHYSICS LETTERS, vol.98, no.11, 2011 (Journal Indexed in SCI)
- XXI. **High spin polarization in epitaxial films of ferrimagnetic Mn₃Ga**
Kurt H., Rode K., Venkatesan M., Stamenov P., Coey J. M. D.
PHYSICAL REVIEW B, vol.83, no.2, 2011 (Journal Indexed in SCI)
- XXII. **Enhanced perpendicular magnetic anisotropy in Co/Ni multilayers with a thin seed layer**
Kurt H., Venkatesan M., Coey J. M. D.
JOURNAL OF APPLIED PHYSICS, vol.108, no.7, 2010 (Journal Indexed in SCI)
- XXIII. **Boron diffusion in magnetic tunnel junctions with MgO (001) barriers and CoFeB electrodes**
Kurt H., Rode K., Oğuz K., Boese M., Faulkner C. C., Coey J. M. D.
APPLIED PHYSICS LETTERS, vol.96, no.26, 2010 (Journal Indexed in SCI)
- XXIV. **Perpendicular Magnetic Anisotropy in CoFeB/Pd Bilayers**
Fowley C., Decorde N., Oğuz K., Rode K., Kurt H., Coey J. M. D.
IEEE TRANSACTIONS ON MAGNETICS, vol.46, no.6, pp.2116-2118, 2010 (Journal Indexed in SCI)
- XXV. **Reduced low frequency noise in electron beam evaporated MgO magnetic tunnel junctions**
Diao Z., Feng J. F., Kurt H., Feng G., Coey J. M. D.
APPLIED PHYSICS LETTERS, vol.96, no.20, 2010 (Journal Indexed in SCI)
- XXVI. **Giant tunneling magnetoresistance with electron beam evaporated MgO barrier and CoFeB electrodes**
Kurt H., Oğuz K., Niizeki T., Coey J. M. D.
JOURNAL OF APPLIED PHYSICS, vol.107, no.8, 2010 (Journal Indexed in SCI)
- XXVII. **Imaging the electrical conductance of individual carbon nanotubes with photothermal current microscopy**
Tsen A. W., Donev L. A. K., Kurt H., Herman L. H., Park J.
NATURE NANOTECHNOLOGY, vol.4, no.2, pp.108-113, 2009 (Journal Indexed in SCI)
- XXVIII. **Effect of asymmetric leads on critical switching current in magnetic nanopillars**
Kurt H., Alhajdarwish M., Pratt W. P., Bass J.
APPLIED PHYSICS LETTERS, vol.89, no.8, 2006 (Journal Indexed in SCI)
- XXIX. **Current-induced magnetization switching in permalloy-based nanopillars with Cu, Ag, and Au**
Kurt H., Loloee R., Pratt W., Bass J.
JOURNAL OF APPLIED PHYSICS, vol.97, no.10, 2005 (Journal Indexed in SCI)
- XXX. **Manipulating current-induced magnetization switching (invited)**

- Urazhdin S., Kurt H., Alhajdarwish M., Birge N., Pratt W., Bass J.
JOURNAL OF APPLIED PHYSICS, vol.97, no.10, 2005 (Journal Indexed in SCI)
- XXXI. **Pd/Ag and Pd/Au interface specific resistances and interfacial spin flipping**
Galinon C., Tewolde K., Loloee R., Chiang W., Olson S., Kurt H., Pratt W., Bass J., Xu P. X., Xia K., et al.
APPLIED PHYSICS LETTERS, vol.86, no.18, 2005 (Journal Indexed in SCI)
- XXXII. **Controlled normal and inverse current-induced magnetization switching and magnetoresistance in magnetic nanopillars**
Alhajdarwish M., Kurt H., Urazhdin S., Fert A., Loloee R., Pratt W., Bass J.
PHYSICAL REVIEW LETTERS, vol.93, no.15, 2004 (Journal Indexed in SCI)
- XXXIII. **Changes in magnetic scattering anisotropy at a ferromagnetic/superconducting interface**
Eid K., Kurt H., Pratt W., Bass J.
PHYSICAL REVIEW B, vol.70, no.10, 2004 (Journal Indexed in SCI)
- XXXIV. **Effect of antiferromagnetic interlayer coupling on current-assisted magnetization switching**
Urazhdin S., Kurt H., Pratt W., Bass J.
APPLIED PHYSICS LETTERS, vol.83, no.1, pp.114-116, 2003 (Journal Indexed in SCI)
- XXXV. **Spin-memory loss and current-perpendicular-to-plane-magnetoresistance in sputtered multilayers with Au**
Kurt H., Chiang W., Ritz C., Eid K., Pratt W., Bass J.
JOURNAL OF APPLIED PHYSICS, vol.93, no.10, pp.7918-7920, 2003 (Journal Indexed in SCI)
- XXXVI. **Spin-memory loss at 4.2 K in sputtered Pd and Pt and at Pd/Cu and Pt/Cu interfaces**
Kurt H., Loloee R., Eid K., Pratt W., Bass J.
APPLIED PHYSICS LETTERS, vol.81, no.25, pp.4787-4789, 2002 (Journal Indexed in SCI)
- XXXVII. **Absence of mean-free-path effects in the current-perpendicular-to-plane magnetoresistance of magnetic multilayers**
Eid K., Portner D., Borchers J., Loloee R., Darwish M., Tsoi M., Slater R., O'Donovan K., Kurt W., Pratt W., et al.
PHYSICAL REVIEW B, vol.65, no.5, 2002 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Ferromagnetic Enhanced Inductively Coupled Plasma Cathode for Thruster Ion Neutralization**
ÇELİK M., KURT H.
17th Annual International Conference on Ion Sources, Geneva, Switzerland, 01 October 2017, vol.2011
- II. **Thermal Analysis and Testing of Different Designs of Lanthanum Hexaboride Hollow Cathodes**
Kokal U., Turan N., ÇELİK M., KURT H.
8th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 19 - 22 June 2017, pp.47-53
- III. **Space Propulsion Research Vacuum Facility of the Bogazici University Space Technologies Laboratory**
Korkmaz O., Jahanbakhsh S., ÇELİK M., KURT H.
7th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 16 - 19 June 2015, pp.635-638

Supported Projects

- KURT H., TUBITAK Project, Mikro-robot Kolu Dizaynı, Üretimi ve Görsel Geri Besleme ile Temessız Manipülasyonu, 2014 - Continues
- KURT H., TUBITAK Project, Uzay Araçlarında İtki Sistemi Olarak Kullanılmak Üzere Bir Prototip RF İyon Motoru Ünitesinin Tasarımı, Üretimi, Testi ve İyonlaşma Odası Plazmasının Sayısal Modellenmesi, 2013 - Continues
- KURT H., TUBITAK Project, Grafen ve grafit spin filtresi, 2013 - Continues

KURT H., TUBITAK Project, Aromatik Organofosfonik Asit Köprü Ligandlar Kullanılarak Hidrotermal Koşullarda Geçiş Metal İçeren Organik/Inorganik Hibrit Materyallerin Sentezi, Karakterizasyonu ve Küçük Molekül Depolama Özelliklerinin Araştırılması, 2013 - Continues

KURT H., TUBITAK Project, Uzun İtici Sistemlerinde Kullanılacak bir Oyuk Katot Ünitesinin Tasarımı, Üretimi, Testi ve Sayısal Modellenmesi, 2013 - Continues

KEÇECİ K., KURT H., Project Supported by Higher Education Institutions, Sensör Amaçlı İletken Yüzey Kaplı Mikropipet Üretimi ve Karakterizasyonu, 2016 - 2019

KURT H., ÇELİK M., Project Supported by Higher Education Institutions, Plazma İyon Enerji Dağılımı Ölçümü İçin Bir Yavaşlatıcı Potansiyel Analizör Probu Geliştirilmesi, 2015 - 2016

TÜRÜT A., AKDENİZ DURAN E., ÖZKAN M. A. , SÖĞÜT S., OKTAY A. B. , ARAS F., GENÇ İ., AKTAŞ Ö., GEREN I. N. , KURT H., et al., Project Supported by Higher Education Institutions, Fen Bilimleri Enstitüsü Disiplinler Arası Lisansüstü Araştırma Laboratuvarlarının Kurulması, 2013 - 2016

TÜRÜT A., BAŞARAN E., TÜRKAN M., KAVAS H., KURT H., DEMİR A., ŞENGEZ B., SAĞIR F., KOYTAK Z. N. , KEÇECİ K., et al., Project Supported by Higher Education Institutions, Uluslararası Yarıiletken Bilimi ve Teknoloji Konferansı (International Semiconductor Science and Technology Conference), 2013 - 2014

KURT H., BAŞARAN E., KÜSKÜ S. İ. , KAVAS H., TÜRÜT A., TÜRKAN M., Project Supported by Higher Education Institutions, Bilgisayar Kontrollü Sıcaklığa Bağlı Elektronik ve Manyetoelektronik Ölçüm Sistemi, 2013 - 2014

Memberships / Tasks in Scientific Organizations

IEEE, Member, 2013 - Continues

American Physical Society, Member, 2002 - Continues

Edit Congress and Symposium Activities

IEEE International Magnetics Conference, INTERMAG Europe 2014, Attendee, Dresden, Germany, 2014

International Conference of Nanoscale Magnetism (ICNM-2013), Attendee, İstanbul, Turkey, 2013

12th Joint MMM/Intermag Conference, Attendee, Chicago, Illinois, United States Of America, 2013

Joint European Magnetic Symposia, Attendee, Parma, ITALY, Italy, 2012

American Physical Society March Meeting, Attendee, Boston, MA, USA, United States Of America, 2012

European Congress and Exhibition on Advanced Materials and Processes, Attendee, Montpellier, FRANCE, France, 2011

IEEE International Magnetics Conference, Attendee, Taipei, TAIWAN, China, 2011

American Physical Society March Meeting, Attendee, Dallas, TX, USA, United States Of America, 2011

Joint European Magnetic Symposia, Attendee, Krakow, POLAND, Poland, 2010

11th Joint MMM-Intermag Conference, Attendee, Washington, DC, USA, United States Of America, 2010

International Conference on Magnetism, Attendee, Karlsruhe, GERMANY, Germany, 2009

Spintech 5 : International School and Conference on Spintronics and Quantum Information Technology, Attendee, Krakow, POLAND, Poland, 2009

American Physical Society March Meeting, Attendee, Pittsburgh, PA, USA, United States Of America, 2009

Joint European Magnetic Symposia, Attendee, Dublin, IRELAND, Ireland, 2008

American Physical Society March Meeting, Attendee, New Orleans, LA, USA, United States Of America, 2008

Worldwide Universities Network Spintronics Consortium WUNSPIN 2007, Attendee, York, ENGLAND, United Kingdom, 2007

American Physical Society March Meeting, Attendee, Los Angeles, CA, USA, United States Of America, 2005

49th Annual Conference on Magnetism & Magnetic Materials, Attendee, Jacksonville, FL, USA, United States Of America, 2004

American Physical Society March Meeting, Attendee, Montreal, QUEBEC, CANADA, Canada, 2004

American Physical Society March Meeting, Attendee, Austin, TX, USA, United States Of America, 2003

47th Annual Conference on Magnetism & Magnetic Materials, Attendee, Tampa, FL, USA, United States Of America, 2002

American Physical Society March Meeting, Attendee, Indianapolis, IN, USA, United States Of America, 2002

Citations

Total Citations (WOS):1132

h-index (WOS):20