

Assoc. Prof. MEHMET FATİH DANIŞMAN

Personal Information

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Education Information

Doctorate, Princeton University, Kimya, United States Of America 2000 - 2005

Postgraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 1999 - 2000

Research Areas

Chemistry, Physical Chemistry, Natural Sciences

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, 2014 - Continues

Assistant Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, 2008 - 2011

Lecturer PhD, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, 2006 - 2008

Advising Theses

Danişman M. F. , Yerci S., Investigation of perfluoropentacene thin films on substrates with different chemical structures, Doctorate, A.YAVUZ(Student), 2020

Danişman M. F. , Investigation of carboxyl-functionalized self-assembled monolayers on gold surfaces., Postgraduate, S.GÖRGÜLÜ(Student), 2020

Danişman M. F. , Yılmaz A., Mixed carboranethiol self-assembled monolayers on gold surfaces, Postgraduate, N.SOHRABNIA(Student), 2017

Danişman M. F. , Bek A., Utilization of fiber loop ring down technique for sensing applications, Postgraduate, A.YOLALMAZ(Student), 2017

Danişman M. F. , Mete E., Uzun menzilli korelasyon dahilinde karborantiol metal yüzey etkileşimlerinin incelenmesi, Postgraduate, G.GÜNEY(Student), 2016

ESENTÜRK O., DANIŞMAN M. F. , FIBER LOOP RING DOWN SPECTROSCOPY FOR TRACE CHEMICAL DETECTION, Postgraduate, B.CENGİZ(Student), 2013

Danişman M. F. , Duman S., Bazı kendiliğinden düzenlenmiş organik ince filmlerin helyum kırınım metoduyla incelenmesi, Doctorate, E.ALBAYRAK(Student), 2012

Danişman M. F. , Ellialtıoğlu S. Ş. , Ab initio studies of pentacene on Ag(111) surfaces, Postgraduate, İ.DEMİROĞLU(Student), 2010

DANIŞMAN M. F. , Growth of gold films on quartz surfaces for quartz crystal microbalance application, Postgraduate, B.ÖZKAN(Student), 2010

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

- I. **Perfluoropentacene thin films on Au(111) surfaces: Effect of kinetic energy and vibrational properties**
Yavuz A., Danisman M. F.
APPLIED SURFACE SCIENCE, vol.586, 2022 (Journal Indexed in SCI)
- II. **Influence of Terminal Carboxyl Groups on the Structure and Reactivity of Functionalized m-Carboranethiolate Self-Assembled Monolayers**
Goronzy D. P. , Stanek J., Avery E., Guo H., Bastl Z., Dusek M., Gallup N. M. , Gun S., Kucerakova M., Levandowski B. J. , et al.
CHEMISTRY OF MATERIALS, vol.32, no.15, pp.6800-6809, 2020 (Journal Indexed in SCI)
- III. **Study on the Effect of Chemically Different Substrates on Nucleation and Growth Mechanism of Perfluoropentacene Thin Films**
Yavuz A., DANIŞMAN M. F.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.123, no.32, pp.19610-19618, 2019 (Journal Indexed in SCI)
- IV. **Discrimination of chemicals via refractive index by EF-FLRD**
Yolalmaz A., Danışman M. F. , Esentürk O.
APPLIED PHYSICS B-LASERS AND OPTICS, vol.125, 2019 (Journal Indexed in SCI)
- V. **Leading to a Better Understanding of the Particle-in-a-Quantum-Corral Model**
Agcali R. Y. , Atik B., Bilgen E., Karli B., DANIŞMAN M. F.
JOURNAL OF CHEMICAL EDUCATION, vol.96, no.1, pp.82-88, 2019 (Journal Indexed in SCI)
- VI. **Mixed carboranethiol self-assembled monolayers on gold surfaces**
Yavuz A., Sohrabnia N., Yilmaz A., Danışman M. F.
APPLIED SURFACE SCIENCE, vol.413, pp.233-241, 2017 (Journal Indexed in SCI)
- VII. **Intracavity gas detection with fiber loop ring down spectroscopy**
Yolalmaz A., Sadroud F. H. , Danışman M. F. , Esentürk O.
OPTICS COMMUNICATIONS, vol.396, pp.141-145, 2017 (Journal Indexed in SCI)
- VIII. **A van der Waals DFT study of chain length dependence of alkanethiol adsorption on Au(111): physisorption vs. chemisorption**
Mete E., Yortanlı M., DANIŞMAN M. F.
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.19, no.21, pp.13756-13766, 2017 (Journal Indexed in SCI)
- IX. **Study of the helium cross-section of unsymmetric disulfide self-assembled monolayers on Au(111)**
ALBAYRAK E., KARABUĞA Ş., Bracco G., DANIŞMAN M. F.
APPLIED SURFACE SCIENCE, vol.390, pp.283-288, 2016 (Journal Indexed in SCI)
- X. **A van der Waals density functional investigation of carboranethiol self-assembled monolayers on Au(111)**
Mete E., YILMAZ A., DANIŞMAN M. F.
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.18, pp.12920-12927, 2016 (Journal Indexed in SCI)
- XI. **Dispersion Corrected DFT Study of Pentacene Thin Films on Flat and Vicinal Au(111) Surfaces**
METE E., DANIŞMAN M. F.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.119, no.7, pp.3596-3604, 2015 (Journal Indexed in SCI)
- XII. **Investigation of the deposition and thermal behavior of striped phases of unsymmetric disulfide self-assembled monolayers on Au(111): The case of 11-hydroxyundecyl decyl disulfide**
ALBAYRAK E., KARABUĞA Ş., Bracco G., DANIŞMAN M. F.
JOURNAL OF CHEMICAL PHYSICS, vol.142, no.1, 2015 (Journal Indexed in SCI)
- XIII. **11-Hydroxyundecyl octadecyl disulfide self-assembled monolayers on Au(111)**
ALBAYRAK E., KARABUĞA Ş., Bracco G., DANIŞMAN M. F.
APPLIED SURFACE SCIENCE, vol.311, pp.643-647, 2014 (Journal Indexed in SCI)
- XIV. **Helium diffraction study of pentacene films on Au(111)**
ALBAYRAK E., DANIŞMAN M. F.
APPLIED SURFACE SCIENCE, vol.295, pp.54-58, 2014 (Journal Indexed in SCI)

- XV. **Helium Diffraction Study of Low Coverage Phases of Mercaptoundecanol and Octadecanethiol Self-Assembled Monolayers on Au(111) Prepared by Supersonic Molecular Beam Deposition**
ALBAYRAK E., DANIŞMAN M. F.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.117, no.19, pp.9801-9811, 2013 (Journal Indexed in SCI)
- XVI. **Helium atom diffraction study of low coverage phases of decanethiol self-assembled monolayers prepared by supersonic molecular beam deposition**
Albayrak E., DUMAN S., Bracco G., DANIŞMAN M. F.
APPLIED SURFACE SCIENCE, vol.268, pp.98-102, 2013 (Journal Indexed in SCI)
- XVII. **Influence of Steps on the Tilting and Adsorption Dynamics of Ordered Pentacene Films on Vicinal Ag(111) Surfaces**
METE E., Demiroglu I., Albayrak E., Bracco G., Elliatioglu S., DANIŞMAN M. F.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.116, no.36, pp.19429-19433, 2012 (Journal Indexed in SCI)
- XVIII. **Simultaneous detection of surface coverage and structure of krypton films on gold by helium atom diffraction and quartz crystal microbalance techniques**
DANIŞMAN M. F. , Ozkan B.
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.82, no.11, 2011 (Journal Indexed in SCI)
- XIX. **Pentacene Multilayers on Ag(111) Surface**
METE E., Demiroglu I., DANIŞMAN M. F. , Elliatioglu S.
JOURNAL OF PHYSICAL CHEMISTRY C, vol.114, no.6, pp.2724-2729, 2010 (Journal Indexed in SCI)
- XX. **Simultaneous detection of surface coverage by helium atom diffraction and quartz crystal microbalance techniques**
DANIŞMAN M. F. , Scoles G.
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.237, 2009 (Journal Indexed in SCI)
- XXI. **Organosilane self-assembled monolayer growth from supercritical carbon dioxide in microstructured optical fiber capillary arrays**
Danisman M. F. , Calkins J. A. , Sazio P. J. A. , Allara D. L. , Badding J. V.
LANGMUIR, vol.24, no.7, pp.3636-3644, 2008 (Journal Indexed in SCI)
- XXII. **Growth of pentacene on Ag(111) surface: A NEXAFS study**
Pedio M., Doyle B., Mahne N., Giglia A., Borgatti F., Nannarone S., Henze S. K. M. , Temirov R., Tautz F. S. , Casalis L., et al.
APPLIED SURFACE SCIENCE, vol.254, no.1, pp.103-107, 2007 (Journal Indexed in SCI)
- XXIII. **Structure of a CH₃S monolayer on Au(111) solved by the interplay between molecular dynamics calculations and diffraction measurements**
Mazzarello R., Cossaro A., Verdini A., Rousseau R., Casalis L., Danisman M. F. , Floreano L., Scandolo S., Morgante A., Scoles G.
PHYSICAL REVIEW LETTERS, vol.98, no.1, 2007 (Journal Indexed in SCI)
- XXIV. **Supersonic molecular beam deposition of pentacene thin films on two Ag(111) surfaces with different step densities**
Danisman M. F. , Casalis L., Scoles G.
PHYSICAL REVIEW B, vol.72, no.8, 2005 (Journal Indexed in SCI)
- XXV. **Bonding self-assembled, compact organophosphonate monolayers to the native oxide surface of silicon**
Hanson E., Schwartz J., Nickel B., Koch N., Danisman M. F.
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol.125, no.51, pp.16074-16080, 2003 (Journal Indexed in SCI)
- XXVI. **Transition structures and energetics for the Cope rearrangement of cis-1,2-divinylcyclopropane: an ab initio study**
Zora M., Ozkan I., Danisman M.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.636, pp.9-13, 2003 (Journal Indexed in SCI)
- XXVII. **Hyperthermal molecular beam deposition of highly ordered organic thin films**
Casalis L., Danisman M. F. , Nickel B., Bracco G., Toccoli T., Iannotta S., Scoles G.
PHYSICAL REVIEW LETTERS, vol.90, no.20, 2003 (Journal Indexed in SCI)

XXVIII. Structural investigation of monolayers prepared by deposition of (CH₃S)₂ on the (111) face of single-crystal gold

Danıřman M. F. , Casalis L., Bracco G., Scoles G.

JOURNAL OF PHYSICAL CHEMISTRY B, vol.106, no.45, pp.11771-11777, 2002 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Perfluoropentacene Films on Metal Surfaces**
DANIřMAN M. F. , Yavuz A.
NanoTr-13, 22 - 25 October 2017
- II. **Construction of a New Multi-technique Helium Diffraction System**
DANIřMAN M. F. , Yavuz A., Bracco G.
NanoTr-13, 22 - 25 October 2017
- III. **Au(111) yzeyler izerinde alkantiyol filmlerin van der Waals DFT metoduyla incelenmesi**
METE E., Yortanlı M., DANIřMAN M. F.
3. Hesaplmalı Kimya KOngresi, Turkey, 12 - 14 October 2017
- IV. **Au(111) yzeyler izerinde PFP filmlerin karakterizasyonu**
DANIřMAN M. F. , Yavuz A., Bracco G.
29. Ulusal Kimya Kongresi, Turkey, 10 - 14 September 2017
- V. **Carboranethiol self-assembled monolayers on gold surfaces**
Sohrabnia N., Yavuz A., YILMAZ A., DANIřMAN M. F.
253rd National Meeting of the American-Chemical-Society (ACS) on Advanced Materials, Technologies, Systems, and Processes, San-Francisco, Costa Rica, 2 - 06 April 2017, vol.253
- VI. **Perfluoropentacene films on gold surfaces grown by supersonic molecular beam deposition**
Yavuz A., Sohrabnia N., Bracco G., DANIřMAN M. F.
253rd National Meeting of the American-Chemical-Society (ACS) on Advanced Materials, Technologies, Systems, and Processes, San-Francisco, Costa Rica, 2 - 06 April 2017, vol.253
- VII. **ORGANİK İNCE FİLMLEİN DENEYSEL VE HESAPLAMALI YÖNTEMLER İLE İNCELENMESİ**
DANIřMAN M. F.
TÜBA-GEBİP YILLIK DEĞERLENDİRME TOPLANTISI VE AKADEMİ KONFERANSI, Turkey, 14 - 16 October 2016
- VIII. **CHEMICAL DETECTION WITH FIBER LOOP RING DOWN SPECTROSCOPY**
Yolalmaz A., Hanifehpour F., ESENTÜRK O., DANIřMAN M. F.
European Network on New Sensing Technologies for Air-Pollution Control and Environmental SustainabilitySixth Scientific Meeting, 5 - 07 October 2016
- IX. **Fiber loop ring down spectrometer optical based sensor for trace chemical detection**
Yolalmaz A., ESENTÜRK O., DANIřMAN M. F. , Hanifehpour F.
14th IUVESTA School, 11 - 15 April 2016
- X. **PFP filmlerin karakterizasyonu için yeni bir helyum kırınım sisteminin kurulumu**
YAVUZ A., DANIřMAN M. F.
IV. YUKPOP International Vacuum Workshop, 28 - 30 March 2016
- XI. **A Density Functional Theory Investigation of CarboranethiolSelf Assembled Monolayers on Au 111**
YILMAZ A., METE E., DANIřMAN M. F.
American Chemical Society National Meeting, 13 - 17 March 2016
- XII. **Theoretical investigation of carboranethiols on gold 111 surface**
METE E., GÜLDEN G., YILMAZ A., DANIřMAN M. F.
European Conference on Surface Science, 30 August - 04 September 2015
- XIII. **Experimental investigation of Gold 111 surface modified withCarboranthiol self assembled monolayer**
YAVUZ A., SOHRABNIA N., YILMAZ A., DANIřMAN M. F.
9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015

- XIV. **Theoretical Investigation of Gold 111 Surfaces Modified with Carboranethiol Self Assembled Monolayers**
METE E., YAVUZ A., ASHIROV T., GUNAY G., YILMAZ A., DANIŞMAN M. F.
9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015
- XV. **Thermal behavior of an unsymmetric disulfide self assembled on Au 111 11 hydroxyundecyl decyl disulfide**
GIANANGELO B., ALBAYRAK E., KARABUĞA Ş., DANIŞMAN M. F.
14th European Conference on Organized Films, 29 June - 02 July 2015
- XVI. **Theoretical Investigation of Gold 111 Surface Modified with Carboranethiol Self Assembled Monolayers**
YILMAZ A., DANIŞMAN M. F. , METE E., Adem Y., Timur A., Gülten G.
9th International Physics Conference of the Balkan Physical Union, 21 - 24 April 2015
- XVII. **Experimental Investigation of Gold 111 Surface Modified with Carboranethiol Self Assembled Monolayers**
YILMAZ A., DANIŞMAN M. F. , Nima S., Adem Y.
9th International Physics Conference of the Balkan Physical Union, 21 - 24 April 2015
- XVIII. **Pentacene thin films on flat and vicinal Au 111 surfaces**
DANIŞMAN M. F. , METE E., ALBAYRAK E.
American Physical Society National Meeting, 1 - 06 March 2015

Supported Projects

Danişman M. F. , TUBITAK Project, Düz ve Basamaklı Au 111 ve Ag 111 Yüzeyler Üzerinde Perfluoropentacene İnce Filmlerin Araştırılması, 2013 - 2022

DANIŞMAN M. F. , GÜN S., Project Supported by Higher Education Institutions, ALTIN YÜZEY ÜZERİNDE KARBOKSİLİK ASİT İLE FONKSİYONLANDIRILMIŞ KARBORANTİYOL FİLMERİNİN KARAKTERİZASYON ÇALIŞMALARI, 2018 - 2019
Yılmaz A., Esentürk O., Çırpan A., Danişman M. F. , TUBITAK Project, Metal İyonları Katkılanmış Çeşitli Borat Bileşiklerinin Luminesan Özelliklerinin Ve Metal Yüzeyler Üzerinde Oluşturulmuş Karborantiol Filmlerin İncelenmesi, 2014 - 2019

DANIŞMAN M. F. , CENGİZ B., Project Supported by Higher Education Institutions, ESER MALZEME TAYİNİ İÇİN FİBER RİNG-DOWN SEKTROSKOPİ SİSTEMİ GELİŞTİRİLMESİ, 2013 - 2013

DANIŞMAN M. F. , TUBITAK Project, Muhtemel Aşağıdan Yukarı Kalıp Ajanı Uygulamaları İçin Asimetrik Disülfit Kendiliğinden Düzenlenmiş Tek Tabakaların KDT Araştırılması, 2010 - 2013

DANIŞMAN M. F. , TUBITAK Project, Ag 111 ve Au 111 Yüzeyleri Üzerinde Süpersonik Moleküler Işın Tekniğiyle Üretilen Pentacene İnce Filmlerin Kuvars Kristal Mikro Terazı ve Helyum Atomu Difraksiyonu Teknikleri ile İncelenmesi ve Optimizasyonu, 2007 - 2011

Scientific Refereeing

SURFACE & COATINGS TECHNOLOGY, SCI Journal, January 2018

Citations

Total Citations (WOS):838

h-index (WOS):11

Awards

Danişman M. F. , Bilim Akademisi Genç Bilim İnsanları Ödül Programı, Bilim Akademisi, April 2018

Danışman M. F. , ODTÜ PROF. DR. MUSTAFA N. PARLAR EĞİTİM VE ARAŞTIRMA VAKFI ARAŞTIRMA TEŞVİK ÖDÜLÜ,
Odtü Prof. Dr. Mustafa N. Parlar Eğitim Ve Araştırma Vakfı, December 2017
Danışman M. F. , Türkiye Bilimler Akademisi Üstün Başarılı Genç Bilim İnsanı Ödülleri Programı , Türkiye Bilimler
Akademisi, June 2014