

Doç. Dr. NECMETTİN KILINÇ

Kişisel Bilgiler

İş Telefonu: [+90 422 377 4195](tel:+904223774195)

E-posta: necmettin.kilinc@inonu.edu.tr

Web: <https://avesis.inonu.edu.tr/necmettin.kilinc>

Posta Adresi: İnönü Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü Elazığ Yolu 15. Km, 44280 Malatya

Uluslararası Araştırmacı ID'leri

ScholarID: [NPItqFgAAAAJ](https://scholar.google.com/citations?hl=tr&user=NPItqFgAAAAJ)

ORCID: [0000-0003-2123-2938](https://orcid.org/0000-0003-2123-2938)

Publons / Web Of Science ResearcherID: [AAT-9845-2020](https://publons.com/author/98452020/AAT-9845-2020)

ScopusID: [24740982700](https://scopus.com/authid/detail.url?authorID=24740982700)

Yoksis Araştırmacı ID: [59959](https://yoksis.inonu.edu.tr/yoksis/59959)

Eğitim Bilgileri

Doktora, Gebze Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Fizik, Türkiye 2006 - 2012

Yüksek Lisans, Gebze Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Fizik, Türkiye 2003 - 2006

Lisans, İnönü Üniversitesi, Fen Edebiyat Fakültesi, Fizik, Türkiye 1999 - 2003

Yaptığı Tezler

Doktora, Nanoyapılandırılmış TiO₂ / Ftalosiyanın heteroyapılarının elektronik özelliklerinin incelenmesi, gaz sensör ve fotoiletkenlik uygulamalarının araştırılması, 2012

Yüksek Lisans, Ftalosiyanın empedans spektroskopisi yöntemiyle karakterize edilmesi, 2006

Araştırma Alanları

Fizik, Atom ve Molekül Fiziği, Atom ve Moleküllerin Elektronik Yapısı Kuramı, Disiplinlerarası Fizik ve İlgili Bilim ve Teknoloji Alanları, Elektronik ve manyetik cihazlar, mikroelektronik, Malzeme Bilimi, Yoğun Madde 2: Elektronik Yapı, Elektrik, Manyetik ve Optik Özellikler, Elektronik yapı, arayüzeylerin, ince filmlerin ve düşük boyutlu yapıların elektrik özellikleri, Temel Bilimler

Akademik Unvanlar / Görevler

Doç. Dr., İnönü Üniversitesi, Fen-Edebiyat Fakültesi, Fizik, 2020 - Devam Ediyor

Doç. Dr., Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Mekatronik Mühendisliği Bölümü, 2016 - 2020

Yrd. Doç. Dr., Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Mekatronik Mühendisliği Bölümü, 2014 - 2016

Araştırma Görevlisi, Gebze Teknik Üniversitesi, Temel Bilimler Fakültesi, Fizik Bölümü, 2004 - 2014

Verdiği Dersler

Dinamik, Lisans, 2014-2015

Temel Elektrik Elektronik, Lisans, 2014-2015
Diferansiyel Denklemler, Lisans, 2014-2015
Nümerik Analiz, Lisans, 2014-2015
Temel Bilgisayar, Lisans, 2014-2015

Yönetilen Tezler

Kılınç N., Öztürk Z. Z., Fabrication of organic/p-type semiconducting metal oxide hybrid structures for gas sensing applications, Yüksek Lisans, O.ŞİŞMAN(Öğrenci), 2016
Kılınç N., Erkovan M., Fabrication and characterization of nanostructured Pt and Pt-Ag alloys, and investigation of their hydrogen gas sensing properties, Yüksek Lisans, Ş.ÜRDEM(Öğrenci), 2016
Kılınç N., Öztürk Z. Z., Fabrication of one dimensional TiO₂ nanostructures modified with organic materials for device applications, Yüksek Lisans, O.ALEV(Öğrenci), 2016

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **AAO-Assisted Nanoporous Platinum Films for Hydrogen Sensor Application**
Sener M., Sisman O., Kilinc N.
CATALYSTS, cilt.13, sa.3, ss.1-11, 2023 (SCI-Expanded)
- II. **Synthesis and analysis of TiO₂ nanotubes by electrochemical anodization and machine learning method for hydrogen sensors**
Isik E., Tasyurek L. B., IŞIK İ., KILINÇ N.
MICROELECTRONIC ENGINEERING, cilt.262, 2022 (SCI-Expanded)
- III. **Platinum-Nickel alloy thin films for low concentration hydrogen sensor application**
KILINÇ N., SANDUVAÇ S., Erkovan M.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.892, 2022 (SCI-Expanded)
- IV. **Hybrid liquid crystalline zinc phthalocyanine@Cu₂O nanowires for NO₂ sensor application**
Sisman O., KILINÇ N., Akkus U. O., Sama J., Romano-Rodriguez A., ATİLLA D., GÜREK A. G., AHSEN V., BERBER S., ÖZTÜRK Z. Z.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.345, 2021 (SCI-Expanded)
- V. **Palladium and platinum thin films for low-concentration resistive hydrogen sensor: a comparative study**
KILINÇ N.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, cilt.32, sa.5, ss.5567-5578, 2021 (SCI-Expanded)
- VI. **Adsorption of Phthalocyanines on Stoichiometric and Reduced Rutile TiO₂(110)**
KILINÇ N., ÖZTÜRK Z. Z., BERBER S.
ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY, cilt.9, sa.6, 2020 (SCI-Expanded)
- VII. **Electrical and NO(2)Sensing Properties of a Series of Liquid Crystalline Porphyrins**
KILINÇ N., AHSEN A. Ş., ÖZTÜRK Z. Z.
ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY, cilt.9, sa.6, 2020 (SCI-Expanded)
- VIII. **Integrated humidity sensor based on SU-8 polymer microdisk microresonator**
Eryurek M., Tasdemir Z., Karadag Y., Anand S., Kilinc N., Alaca B. E., Kiraz A.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.242, ss.1115-1120, 2017 (SCI-Expanded)
- IX. **Structural, electrical and H-2 sensing properties of copper oxide nanowires on glass substrate by anodization**
Sisman O., Kilinc N., Ozturk Z. Z.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.236, ss.1118-1125, 2016 (SCI-Expanded)
- X. **Sputtered platinum thin films for resistive hydrogen sensor application**
Sennik E., Urdem S., Erkovan M., Kilinc N.

MATERIALS LETTERS, cilt.177, ss.104-107, 2016 (SCI-Expanded)

- XI. **Pd thin films on flexible substrate for hydrogen sensor**
Ozturk S., Kilinc N.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.674, ss.179-184, 2016 (SCI-Expanded)
- XII. **alpha-Thiophene end-capped styrene copolymer containing fullerene pendant moieties: Synthesis, characterization, and gas sensing properties**
Sennik E., Sennik B., Alev O., Kilinc N., Yilmaz F., Ozturk Z. Z.
JOURNAL OF APPLIED POLYMER SCIENCE, cilt.133, sa.27, 2016 (SCI-Expanded)
- XIII. **Poly(3-Methylthiophene) Thin Films Deposited Electrochemically on QCMs for the Sensing of Volatile Organic Compounds**
Ozturk S., Kosemen A., Sen Z., Kilinc N., Harbeck M.
SENSORS, cilt.16, sa.4, 2016 (SCI-Expanded)
- XIV. **Electrochemically growth of Pd doped ZnO nanorods on QCM for room temperature VOC sensors**
Ozturk S., Kosemen A., Kosemen Z. A., Kilinc N., Ozturk Z. Z., Penza M.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.222, ss.280-289, 2016 (SCI-Expanded)
- XV. **Precision density and viscosity measurement using two cantilevers with different widths**
Cakmak O., Ermek E., Kilinc N., Yaralioglu G. G., Urey H.
SENSORS AND ACTUATORS A-PHYSICAL, cilt.232, ss.141-147, 2015 (SCI-Expanded)
- XVI. **Optical sensor for hydrogen gas based on a palladium-coated polymer microresonator**
Eryurek M., Karadag Y., Tasaltin N., Kilinc N., Kiraz A.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.212, ss.78-83, 2015 (SCI-Expanded)
- XVII. **A cartridge based sensor array platform for multiple coagulation measurements from plasma**
Cakmak O., Ermek E., Kilinc N., Bulut S., Baris I., Kavakli I. H., Yaralioglu G. G., Urey H.
LAB ON A CHIP, cilt.15, sa.1, ss.113-120, 2015 (SCI-Expanded)
- XVIII. **Electrochemical Growth of Pd Doped ZnO Nanorods**
Kosemen A., Kosemen Z. A., Ozturk S., Kilinc N., San S. E., Tunc A. V.
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, cilt.162, sa.4, 2015 (SCI-Expanded)
- XIX. **Electrical and VOC sensing properties of anatase and rutile TiO₂ nanotubes**
Sennik E., Kilinc N., Ozturk Z. Z.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.616, ss.89-96, 2014 (SCI-Expanded)
- XX. **Fabrication of 1D ZnO nanostructures on MEMS cantilever for VOC sensor application**
Kilinc N., Cakmak O., Kosemen A., Ermek E., Ozturk S., Yerli Y., Ozturk Z. Z., Urey H.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.202, ss.357-364, 2014 (SCI-Expanded)
- XXI. **Electrical conduction and NO₂ gas sensing properties of ZnO nanorods**
Sahin Y., Ozturk S., Kilinc N., Kosemen A., Erkovan M., Ozturk Z. Z.
APPLIED SURFACE SCIENCE, cilt.303, ss.90-96, 2014 (SCI-Expanded)
- XXII. **Hydrogen sensing properties of ZnO nanorods: Effects of annealing, temperature and electrode structure**
Ozturk S., Kilinc N., Torun I., Kosemen A., Sahin Y., Ozturk Z. Z.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, cilt.39, sa.10, ss.5194-5201, 2014 (SCI-Expanded)
- XXIII. **Fabrication and gas sensing properties of C-doped and un-doped TiO₂ nanotubes**
Kilinc N., Sennik E., Isik M., Ahsen A. S., Ozturk O., Ozturk Z. Z.
CERAMICS INTERNATIONAL, cilt.40, sa.1, ss.109-115, 2014 (SCI-Expanded)
- XXIV. **Fabrication of ZnO nanorods for NO₂ sensor applications: Effect of dimensions and electrode position**
Ozturk S., Kilinc N., Ozturk Z. Z.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.581, ss.196-201, 2013 (SCI-Expanded)
- XXV. **Resistive Hydrogen Sensors Based on Nanostructured Metals and Metal Alloys**
Kilinc N.
NANOSCIENCE AND NANOTECHNOLOGY LETTERS, cilt.5, sa.8, ss.825-841, 2013 (SCI-Expanded)
- XXVI. **Effect of Ambient Atmosphere on Photoconductivity of TiO₂ Nanotube-CuPc Heterojunction**

- Kilinc N., Sennik E., Atilla D., Gurek A. G., Ahsen V., Ozturk Z. Z.
SCIENCE OF ADVANCED MATERIALS, cilt.5, sa.4, ss.373-379, 2013 (SCI-Expanded)
- XXVII. **Electrical and NO₂ sensing properties of liquid crystalline phthalocyanine thin films**
Kilinc N., Ozturk S., Atilla D., Gurek A. G., Ahsen V., Ozturk Z. Z.
SENSORS AND ACTUATORS B-CHEMICAL, cilt.173, ss.203-210, 2012 (SCI-Expanded)
- XXVIII. **Structural, electrical transport and NO₂ sensing properties of Y-doped ZnO thin films**
Kilinc N., Ozturk S., Arda L., ALTINDAL A., Ozturk Z. Z.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.536, ss.138-144, 2012 (SCI-Expanded)
- XXIX. **Fabrication of ZnO nanowires and nanorods**
Ozturk S., Kilinc N., Tasaltin N., Ozturk Z. Z.
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, cilt.44, sa.6, ss.1062-1065, 2012 (SCI-Expanded)
- XXX. **Fabrication of TiO₂ nanotubes by anodization of Ti thin films for VOC sensing**
Kilinc N., Sennik E., Ozturk Z. Z.
THIN SOLID FILMS, cilt.520, sa.3, ss.953-958, 2011 (SCI-Expanded)
- XXXI. **A comparative study on the NO₂ gas sensing properties of ZnO thin films, nanowires and nanorods**
Ozturk S., Kilinc N., Tasaltin N., Ozturk Z. Z.
THIN SOLID FILMS, cilt.520, sa.3, ss.932-938, 2011 (SCI-Expanded)
- XXXII. **Investigation of the hydrogen gas sensing properties of nanoporous Pd alloy films based on AAO templates**
Tasaltin N., Ozturk S., Kilinc N., Ozturk Z. Z.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.509, sa.14, ss.4701-4706, 2011 (SCI-Expanded)
- XXXIII. **Fabrication of Pd-Fe nanowires with a high aspect ratio by AAO template-assisted electrodeposition**
Tasaltin N., Ozturk S., Kilinc N., Yuzer H., Ozturk Z. Z.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.509, sa.9, ss.3894-3898, 2011 (SCI-Expanded)
- XXXIV. **Temperature-dependent H₂ gas-sensing properties of fabricated Pd nanowires using highly oriented pyrolytic graphite**
Sennik E., Kilinc N., Ozturk Z. Z.
JOURNAL OF APPLIED PHYSICS, cilt.108, sa.5, 2010 (SCI-Expanded)
- XXXV. **Fabrication of vertically aligned Pd nanowire array in AAO template by electrodeposition using neutral electrolyte**
Tasaltin N., Ozturk S., Kilinc N., Yuzer H., Ozturk Z. Z.
NANOSCALE RESEARCH LETTERS, cilt.5, sa.7, ss.1137-1143, 2010 (SCI-Expanded)
- XXXVI. **Synthesis of highly-ordered TiO₂ nanotubes for a hydrogen sensor**
Sennik E., Colak Z., Kilinc N., Ozturk Z. Z.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, cilt.35, sa.9, ss.4420-4427, 2010 (SCI-Expanded)
- XXXVII. **Structure and electrical properties of Mg-doped ZnO nanoparticles**
Kilinc N., Arda L., Ozturk S., Ozturk Z. Z.
CRYSTAL RESEARCH AND TECHNOLOGY, cilt.45, sa.5, ss.529-538, 2010 (SCI-Expanded)
- XXXVIII. **Fabrication of ZnO nanowires at room temperature by cathodically induced sol-gel method**
Ozturk S., Tasaltin N., Kilinc N., Yuzer H., Ozturk Z. Z.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, cilt.99, sa.1, ss.73-78, 2010 (SCI-Expanded)
- XXXIX. **Temperature dependence of a nanoporous Pd film hydrogen sensor based on an AAO template on Si**
Tasaltin N., Ozturk S., Kilinc N., Ozturk Z. Z.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, cilt.97, sa.4, ss.745-750, 2009 (SCI-Expanded)
- XL. **Volatile organic compounds sensing properties of tetrakis(alkylthio)-substituted lutetium(III) bisphthalocyanines thin films**
Kilinc N., Atilla D., Guerek A. G., Oeztuerk Z. Z., Ahsen V.
TALANTA, cilt.80, sa.1, ss.263-268, 2009 (SCI-Expanded)
- XLI. **Recent studies chemical sensors based on phthalocyanines**
Ozturk Z. Z., Kilinc N., Atilla D., Gurek A. G., Ahsen V.
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, cilt.13, sa.11, ss.1179-1187, 2009 (SCI-Expanded)

- XLII. Tetrakis(alkylthio)-substituted lutetium bisphthalocyanines for sensing NO₂ and O₃**
 Kilinc N., Atilla D., Gurek A. G., Ozturk Z. Z., Ahsen V.
 SENSORS AND ACTUATORS B-CHEMICAL, cilt.142, sa.1, ss.73-81, 2009 (SCI-Expanded)
- XLIII. Oxidizing gas sensing properties of mesogenic copper octakisalkylthiophthalocyanine chemoresistive sensors**
 Kilinc N., Atilla D., Ozturk S., Gurek A. G., Ozturk Z. Z., Ahsen V.
 THIN SOLID FILMS, cilt.517, sa.22, ss.6206-6210, 2009 (SCI-Expanded)
- XLIV. Simple fabrication of hexagonally well-ordered AAO template on silicon substrate in two dimensions**
 Tasaltin N., Ozturk S., Kilinc N., Yuezzer H., Ozturk Z. Z.
 APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, cilt.95, sa.3, ss.781-787, 2009 (SCI-Expanded)
- XLV. Synthesis, characterization, mesomorphic and electrical properties of tetrakis(alkylthio)-substituted lutetium(III) bisphthalocyanines**
 Atilla D., Kilinc N., Yuksel F., Gurek A. G., Ozturk Z. Z., Ahsen V.
 SYNTHETIC METALS, cilt.159, ss.13-21, 2009 (SCI-Expanded)
- XLVI. Electrical Properties of Mesomorphic Phthalocyanine-Carbon Nanotube Composites**
 Kilinc N., Ahsen A. S., Atilla D., Guerek A. G., San S. E., Oeztuerk Z. Z., Ahsen V.
 SENSOR LETTERS, cilt.6, sa.4, ss.607-612, 2008 (SCI-Expanded)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. THE EFFECT OF CRYSTAL STRUCTURE AND METAL ELECTRODES ON GAS DETECTION IN TiO₂ NANOTUBES H₂ SENSORS**
 TAŞYÜREK L. B., IŞIK E., IŞIK İ., KILINÇ N.
 23rd World Hydrogen Energy Conference (WHEC-2022), İstanbul, Türkiye, 26 - 30 Haziran 2022
- II. Optical Sensor for Humidity and Hydrogen Gas Based on Polymer Microresonators**
 Kiraz A., Eryurek M., Tasdemir Z., Karadag Y., Anand S., Kilinc N., Alaca B. E.
 Progress in Electromagnetic Research Symposium (PIERS), Shanghai, Çin, 8 - 11 Ağustos 2016, ss.2617
- III. Catalytic thin film on flexible substrate for hydrogen sensor**
 KILINÇ N.
 2nd International Nanoscience and Nanotechnology for Next Generation Conference (NaNONG) 2015, 29 - 31 Ekim 2015
- IV. The effect of anodization parameters on formation of porous anodic aluminum oxide**
 Sanduvaç S., KILINÇ N.
 2nd International Nanoscience and Nanotechnology for Next Generation Conference (NaNONG) 2015, 29 - 31 Ekim 2015
- V. Hydrogen and Humidity Sensing Based on WGMs of Elastic Polymer Optical Microresonators**
 Eryürek M., KARADAĞ Y., ANAND S., KILINÇ N., KİRAZ A.
 Progress In Electromagnetics Research Symposium PIERS 2015, 6 - 09 Temmuz 2015
- VI. Hydrogen gas sensing using palladium-coated microdisk microresonators**
 Eryurek M., Karadag Y., Tasaltin N., Kilinc N., Kiraz A.
 Conference on Laser Resonators, Microresonators, and Beam Control XVII, San-Francisco, Kostarika, 9 - 12 Şubat 2015, cilt.9343
- VII. H-2 sensing properties of Cu₂O nanowires on glass substrate**
 Sisman O., Kilinc N., Ozturk Z. Z.
 Conference on EUROSENSORS, Freiburg, Almanya, 6 - 09 Eylül 2015, cilt.120, ss.1170-1174
- VIII. TWO CANTILEVER BASED SYTEM FOR VISCOSITY AND DENSITY MONITORING**
 Cakmak O., Ermek E., Kilinc N., Yaralioglu G. G., Urey H.
 International Conference on Optical MEMS and Nanophotonics (OMN), Jerusalem, İsrail, 2 - 05 Ağustos 2015
- IX. Gas sensor application of hydrothermally growth TiO₂ nanorods**
 Alev O., Sennik E., Kilinc N., Ozturk Z. Z.

Conference on EUROSENSORS, Freiburg, Almanya, 6 - 09 Eylül 2015, cilt.120, ss.1162-1165

- X. **Microcantilever based loc system for coagulation measurements**
Cakmak O., Ermek E., Kilinc N., Baris I., Kavakli I., Yaralioglu G., Urey H.
18th International Conference on Miniaturized Systems for Chemistry and Life Sciences, MicroTAS 2014, Texas, Amerika Birleşik Devletleri, 26 - 30 Ekim 2014, ss.2050-2052
- XI. **LoC SENSOR ARRAY PLATFORM FOR REAL-TIME COAGULATION MEASUREMENTS**
Cakmak O., Kilinc N., Ermek E., Mostafazadeh A., Elbuken C., Yaralioglu G. G., Urey H.
27th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), San-Francisco, Kostarika, 26 - 30 Ocak 2014, ss.330-333
- XII. **MEMS Based Blood Plasma Viscosity Sensor Without Electrical Connections**
Cakmak O., Ermek E., Urey H., Yaralioglu G. G., Kilinc N.
12th IEEE Sensors Conference, Maryland, Amerika Birleşik Devletleri, 3 - 06 Kasım 2013, ss.853-856
- XIII. **A VOC sensor based on micromechanical cantilever functionalized with ZNO nanorods**
Kilinc N., Cakmak O., Kosemen A., Ermek E., Ozturk S., Yerli Y., Ozturk Z., Urey H.
17th International Conference on Miniaturized Systems for Chemistry and Life Sciences, MicroTAS 2013, Freiburg, Almanya, 27 - 31 Ekim 2013, cilt.3, ss.1529-1531
- XIV. **The Effects of Annealing on Gas Sensing Properties of ZnO Nanorod Sensors Coated with Pd and Pt**
Ozturk S., Kilinc N., Ozturk Z. Z.
26th European Conference on Solid-State Transducers (Euroensors), Krakow, Polonya, 9 - 12 Eylül 2012, cilt.47, ss.434-437

Desteklenen Projeler

KILINÇ N., BOYRAZ Z., Yükseköğretim Kurumları Destekli Proje, Platin Nanotüp Üretimi Karakterizasyonu ve Gaz Algılama Özelliklerinin İncelenmesi, 2022 - 2023

Metrikler

Yayın: 63

Atıf (WoS): 1407

Atıf (Scopus): 1272

H-İndeks (WoS): 24

H-İndeks (Scopus): 23