

## **Prof. FİLİZ ERCAN**

### **Personal Information**

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### **International Researcher IDs**

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### **Education Information**

Doctorate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1987 - 1994

Postgraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1983 - 1987

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1978 - 1983

### **Certificates, Courses and Trainings**

Quality Management, Kalite Kurulu Kurumsal Dış Değerlendirme Programı, YÖK, 2016

Occupational Health and Safety, İş Sağlığı ve Güvenliği, Ankara ASO 1. Organize Sanayi Bölgesi, 2012

### **Research Areas**

Nanomaterials, Physics, Materials Science, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Structure of Liquids and Solids; Crystallography, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties

### **Academic Titles / Tasks**

Professor, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2006 - Continues

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2000 - 2006

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 1997 - 2000

### **Academic and Administrative Experience**

YÖK Kurum Danışmanı, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2012 - 2019

Hacettepe Üniversitesi, Nükleer Bilimler Enstitüsü, Nükleer Bilimler Anabilim Dalı Başkanı, 2012 - 2015

Hacettepe Üniversitesi, Mühendislik Fakültesi, Fizik Mühendisliği, 2012 - 2015

Hacettepe Üniversitesi, Hacettepe ASO 1. OSB MYO, Kurucu Müdürü, 2012 - 2015

Hacettepe Üniversitesi, Mühendislik Fakültesi, Fakülte Kurulu Doçent Temsilcisi,, Fizik Mühendisliği, 2003 - 2005

### **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. Heat treatment effects on the structural and electrical properties of thermally deposited AgIn<sub>5</sub>S<sub>8</sub>

## **thin films**

- Qasrawi A. F., Kayed T. S., ERCAN F.  
SOLID STATE COMMUNICATIONS, vol.151, no.8, pp.615-618, 2011 (SCI-Expanded)
- II. **Preparation of thin film alloys with electrodeposition from heterotrinuclear M-1-M-2-M-1 complexes (M-1: Ni-II, Cu-II; M-2: Cu-II, Co-II, Zn-II, Cd-II)**  
Duzgun E., Ergun U., ERCAN F., Sert M., Aksu M. L., Atakol O.  
JOURNAL OF COATINGS TECHNOLOGY AND RESEARCH, vol.7, no.3, pp.365-371, 2010 (SCI-Expanded)
- III. **Thermal decomposition of new mononuclear Ni<sup>II</sup> complexes with ONNO type reduced Schiff bases and Pseudo halogens**  
Ateş B. M., Zeybek B., Aksu M., Ergun Ü., ERCAN F., Aksu M. L., Atakol O.  
Zeitschrift fur Anorganische und Allgemeine Chemie, vol.636, no.5, pp.840-845, 2010 (SCI-Expanded)
- IV. **The effect of ligand basicity on the thermal stability of heterodinuclear Ni<sup>II</sup>-Zn<sup>II</sup> complexes**  
Zeybek B., Ateş B. M., ERCAN F., Aksu M. L., Kılıç E., Atakol O.  
Journal of Thermal Analysis and Calorimetry, vol.98, no.2, pp.377-385, 2009 (SCI-Expanded)
- V. **Crystal structure of a new homo trinuclear Ni(II) complex with μ-cyanoacetato bridge**  
Meltem Ateş B., ERCAN F., Levent Aksu M., Atakol O.  
Zeitschrift fur Kristallographie, vol.223, no.8, pp.530-535, 2008 (SCI-Expanded)
- VI. **Structural characterization of Langmuir-Blodgett films of 4,5-bis(dodecyloxy)phthalic acid**  
Topacli C., Topach A., Civan M., ERCAN F., Durmus M., Ahsen V.  
THIN SOLID FILMS, vol.516, no.23, pp.8299-8306, 2008 (SCI-Expanded)
- VII. **Dichlorido-1κCl,3κCl-bis-{μ-2,2'-[propane-1,3-diylbis(iminomethylene)]di-phenolato}-1:2κ6O,N,N',O':O,O';2:3κ6O,O':O,N,N',O'-tricopper(II)**  
Ates B. M., ERCAN F., Svoboda I., Fuess H., Atakol O.  
Acta Crystallographica Section E: Structure Reports Online, vol.64, no.3, 2008 (SCI-Expanded)
- VIII. **Structure and thermal decomposition of μ-1,1-azido bridged dinuclear Fe(III) complexes**  
ERCAN F., Ates B. M., Aksu L., Sözeri H., Ercan I., Atakol O.  
Zeitschrift fur Kristallographie, vol.222, no.9, pp.498-503, 2007 (SCI-Expanded)
- IX. **Crystal and molecular structure of a new trinuclear copper(II) complex: Cu<sub>3</sub>L<sub>2</sub>(NCS)<sub>2</sub>·2.5(C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>), L = bis-N,N'(salicylidene)1,3-propanediamine dianion**  
ERCAN F., Atakol O.  
Zeitschrift fur Kristallographie, vol.221, no.11, pp.735-739, 2006 (SCI-Expanded)
- X. **Magnetic properties of trinuclear Ni-M-Ni complexes, M = Mn, Co and Ni**  
Atakol O., Boca R., Ercan I., Ercan F., Fuess H., Haase W., Herchel R.  
CHEMICAL PHYSICS LETTERS, vol.423, pp.192-196, 2006 (SCI-Expanded)
- XI. **Synthesis, crystal structure and magnetic behaviour of a mononuclear Fe(III) - Schiff base metal complex**  
Nazir H., Akben N. S., Ateş M. B., Sözeri H., Ercan I., Atakol O., ERCAN F.  
Zeitschrift fur Kristallographie, vol.221, no.4, pp.276-280, 2006 (SCI-Expanded)
- XII. **Synthesis and crystal structure of a homotrinuclear Ni(II) complex**  
Durmuş S., Ateş B. M., Atakol O., ERCAN F.  
Zeitschrift fur Kristallographie, vol.220, no.11, pp.973-976, 2005 (SCI-Expanded)
- XIII. **A new Ni-Zn heterodinuclear complex: [μ<sub>2</sub>-bis(salicylidene)propane-1,3-diaminato]-dichlorobis(N,N-dimethylformamide)nickel(II)-zinc(II)**  
ERCAN F.  
Acta Crystallographica Section E: Structure Reports Online, vol.61, no.9, 2005 (SCI-Expanded)
- XIV. **Synthesis and crystal structure of two dimeric cadmium(II) complexes bonded with pseudohalides, 1.1 and 1.3 bonding**  
ERCAN F., Arici C., Ülkü D., Kurtaran R., Aksu M., Atakol O.  
Zeitschrift fur Kristallographie, vol.219, no.5, pp.295-299, 2004 (SCI-Expanded)
- XV. **Structural analysis of bis{(N,N'-dimethylformamide) (μformato)[μ,-bis(salicylidene)-1,3-propanediaminato] nickel(II)} copper(II) and zinc(II) monohydrate hetero-trinuclear complexes**

- ERCAN F., Ateş M., Ercan Y., Durmuş S., Atakol O.  
 Crystal Research and Technology, vol.39, no.5, pp.470-476, 2004 (SCI-Expanded)
- XVI. **Synthesis and crystal structure of linear chain homotetranuclear complexes with N-3(-)Kurtaran R., Emregul K., Arici C., Ercan F., Catalano V., Atakol O.**  
 SYNTHESIS AND REACTIVITY IN INORGANIC AND METAL-ORGANIC CHEMISTRY, vol.33, no.2, pp.281-296, 2003 (SCI-Expanded)
- XVII. **Synthesis, structural and spectral studies of N-p-methylbenzyliden-N-phenyl-p,p'-dimethoxybenzoyl acetic acid hydrazide**  
 Ulku D., Arici C., Ercan F., Sacmacı M., Saripinar E., Akcamur Y.  
 ZEITSCHRIFT FÜR KRISTALLOGRAPHIE, vol.218, no.5, pp.377-380, 2003 (SCI-Expanded)
- XVIII. **Bis{[ $\mu$ -N, N'-bis(salicylidene)-1,4-butanediamine-N, N', O, O'-copper(II)]- $\mu$ -chloro-chloromercury(II)}**  
 Ercan I., Ercan F., Arici C., Atakol O.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.58, no.2, 2002 (SCI-Expanded)
- XIX. **Three heterotrinuclear Schiff base complexes of nickel(II) with cobalt(II), copper(II) and manganese(II)**  
 Ercan F., Atakol O., Arici C., Svoboda I., Fuess H.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.58, no.3, 2002 (SCI-Expanded)
- XX. **Crystal structure of [N,N'-bis(3,5-dinitrosalicylidene)-1,3-propanediaminato]-bis(3,4-dimethylpyridine)]nickel(II)dioxane solvate**  
 Arici C., ERCAN F., Atakol O., Basgut Ö.  
 Analytical Sciences, vol.18, no.3, pp.375-376, 2002 (SCI-Expanded)
- XXI. **[N,N'-Bis(salicylidene)-2,2-dimethyl-1,3-propanediaminato]nickel(II) and [N,N'-bis(salicylidene)-2,2-dimethyl-1,3-propanediaminato]copper(II)**  
 Arici C., Ercan F., Kurtaran R., Atakol O.  
 ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS, vol.57, pp.812-814, 2001 (SCI-Expanded)
- XXII. **Some di- and trinuclear zinc complexes: Anion induced complex formation**  
 Atakol O., Nazir H., Aksu M., Arici C., Ercan F., Cicek B.  
 SYNTHESIS AND REACTIVITY IN INORGANIC AND METAL-ORGANIC CHEMISTRY, vol.30, no.4, pp.709-718, 2000 (SCI-Expanded)
- XXIII. **{[ $\mu$ -Bis(salicylidene)-1,3-propanediaminato]-bis(4-methylpyridine) nickel(II)}dichlorozinc(II)**  
 Atakol O., ERCAN F., Arici C., Fuess H., Svoboda I.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.55, no.12, pp.2023-2026, 1999 (SCI-Expanded)
- XXIV. **Aqua[N,N'-bis(salicylidene)-1,3-propanediaminato]copper(II)**  
 Arici C., ERCAN F., Atakol O., Cakirer O.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.55, no.10, pp.1654-1655, 1999 (SCI-Expanded)
- XXV. **Crystal structure of 1-ethyl-3-methylbenzimidazole-2-thione**  
 Ingec S., Soylu H., Kucukbay H., Ercan F., Akkurt M.  
 ANALYTICAL SCIENCES, vol.15, no.9, pp.927-928, 1999 (SCI-Expanded)
- XXVI. **A linear trinuclear CdII-CdII-CdII complex with a  $\mu$ -acetato bridge: Bis{( $\mu$ -acetato)[ $\mu$ -bis(salicylidene)-1,3-propanediaminato]-cadmium(II)} cadmium(II)**  
 Atakol O., Aksu M., ERCAN F., Arici C., Tahir M. N., Ülkü D.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.55, no.7, pp.1072-1075, 1999 (SCI-Expanded)
- XXVII. **{[ $\mu$ -Bis(salicylidene)-1,3-propanediaminato]bis(3,5-dimethylpyridine)- nickel(II)}diiodozinc(II)**  
 Arici C., ERCAN F., Atakol O., Akay A., Ülkü D.  
 Acta Crystallographica Section C: Crystal Structure Communications, vol.55, no.6, pp.928-930, 1999 (SCI-Expanded)

- XXVIII. **{[ $\mu$ -Bis(salicylidene)-1,3-propanediaminato]copper(II)}diiodozinc(II) †**  
 ERCAN F., Arici C., Ülkü D., Atakol O., Aksu M.  
*Acta Crystallographica Section C: Crystal Structure Communications*, vol.55, no.6, pp.930-932, 1999 (SCI-Expanded)
- XXIX. **{[ $\mu$ -Bis(salicylidene)-1,3-propanediaminato](3-methylpyridine)copper(I I)} -diiodozinc(II)**  
 ERCAN F., Arici C., Akay A., Atakol O., Ülkü D.  
*Acta Crystallographica Section C: Crystal Structure Communications*, vol.55, no.6, pp.925-928, 1999 (SCI-Expanded)
- XXX. **Bis{( $\mu$ -acetato)[ $\mu$ -bis(salicylidene)-1,3-propanediaminato]copper(II)}copper(II) dioxane solvate**  
 Atakol O., Arici C., Ercan F., Ulku D.  
*ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS*, vol.55, pp.511-513, 1999 (SCI-Expanded)
- XXXI. **Crystal structure of 1,3-dimethylbenzimidazole-2-selenone, C<sub>9</sub>H<sub>10</sub>N<sub>2</sub>Se**  
 Aydin A., Soylu H., Kucukbay H., Akkurt M., Ercan F.  
*ZEITSCHRIFT FUR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES*, vol.214, no.2, pp.295-296, 1999 (SCI-Expanded)
- XXXII. **Bis{( $\mu$ -acetato)[ $\mu$ -bis(salicylidene)-1,3-propanediaminato]copper(II)}cadmium(II) dioxane solvate**  
 Ercan F., Ulku D., Atakol O., Dincer F.  
*ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS*, vol.54, pp.1787-1790, 1998 (SCI-Expanded)
- XXXIII. **A linear trinuclear NiII-MnII-NiII complex with a  $\mu$ -acetato bridge: Bis{( $\mu$ -acetato)[ $\mu$ -bis(salicylidene)-1,3-propanediaminato](N,N- dimethylformamide)nickel(II)}manganese(II)**  
 ERCAN F., Atakol O.  
*Acta Crystallographica Section C: Crystal Structure Communications*, vol.54, no.9, pp.1268-1270, 1998 (SCI-Expanded)
- XXXIV. **N-(2-hydroxy-5-chlorophenyl)thiophenyl-acetamide**  
 Tarimci Ç., ERCAN F., Koçoglu M., Ören I.  
*Acta Crystallographica Section C: Crystal Structure Communications*, vol.54, no.4, pp.488-489, 1998 (SCI-Expanded)
- XXXV. **Preparation and X-ray structure of bis(1-methyl-3-ethylbenzimidazolidine-2-ylium) tetrafluoroborate**  
 Aydin A., Soylu H., Gunes B., Akkurt M., Ercan E., Kucukbay H., Cetinkaya E.  
*ZEITSCHRIFT FUR KRISTALLOGRAPHIE*, vol.213, no.9, pp.473-476, 1998 (SCI-Expanded)
- XXXVI. **3,3-dichloro-4-(4-chlorophenyl)-1-phenyl-azetidin-2-one**  
 Ulku D., Ercan F., Guner V.  
*ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS*, vol.53, pp.1945-1947, 1997 (SCI-Expanded)
- XXXVII. **Bis{( $\mu$ -acetato)[ $\mu$ -bis(salicylidene)-1,3-propanediaminato](dimethyl sulfoxide)-nickel(II)}nickel(II)**  
 Ülkü D., ERCAN F., Atakol O., Dinçer F. N.  
*Acta Crystallographica Section C: Crystal Structure Communications*, vol.53, no.8, pp.1056-1057, 1997 (SCI-Expanded)
- XXXVIII. **Bis{2-[ $(2\text{-hydroxybenzyl})\text{iminomethyl}$ ]phenolato(2-)O:N, O'}dicopper(II)**  
 Ulku D., Ercan F., Atakol O., Ercan I., Gencer A.  
*ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS*, vol.53, pp.179-181, 1997 (SCI-Expanded)
- XXXIX. **Crystal Structure of Bis[4-(5-methyl-2-oxyphenyl- $\kappa$ O,2 $\kappa$ O)-4-imino-2-penten-2-olato-O, O',N']copper(II)**  
 Atakol O., ERCAN F., Ülkü D., Yilmaz N.  
*Analytical Sciences*, vol.13, no.6, pp.1051-1052, 1997 (SCI-Expanded)
- XL. **Crystal structure of tris-(N-salicylidene-benzylamino)cobalt(III), C<sub>42</sub>H<sub>36</sub>N<sub>3</sub>O<sub>3</sub>Co**

- Sari M., Yagbasan R., Ercan R., Atakol O., Kenar A.  
ZEITSCHRIFT FUR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES, vol.212, no.2, pp.185-187, 1997 (SCI-Expanded)
- XLI. **Crystal structure of {N,N'-di-(2-hydroxy-1-naphthylidene)-1-methyl-1,2-diaminoethane-N,N',O,O'}nickel(II), (C<sub>25</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>)Ni(II)**  
Ercan F., Sari M., Yagbasan R., Atakol O., Akay M.  
ZEITSCHRIFT FUR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES, vol.212, no.2, pp.183-184, 1997 (SCI-Expanded)
- XLII. **(Diethylamine-N){4-methyl-2-[(2-oxido-benzylidene)amino]phenolato(2-)O,N,O,O'}-nickel(II)**  
ERCAN F., Sari M., Yağbasan R., Taştekin M., Aksu L.  
Acta Crystallographica Section C: Crystal Structure Communications, vol.52, no.11, pp.2682-2684, 1996 (SCI-Expanded)
- XLIII. **Bis[N-(2,6-dimethylphenyl)amino-glyoximato-N,N']nickel(II)**  
Ulkı D., Ercan F., Macit M., Gulce A.  
ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS, vol.52, pp.2680-2682, 1996 (SCI-Expanded)
- XLIV. **{4-methyl-2-[(2-oxidobenzylidene)amino]-phenolato(2-)N,O,O'}** (piperidine-N)-nickel(II)  
Atakol O., Kenar A., ERCAN F., Sari M., Yağbasan R.  
Acta Crystallographica Section C: Crystal Structure Communications, vol.52, no.8, pp.1881-1884, 1996 (SCI-Expanded)
- XLV. **Bis[N-(4-chlorobenzylidene)-2-mercaptopropanilinato]nickel(II)**  
ERCAN F., Ülkü D., Ancın N., Oztas S. G., Tüzün M.  
Acta Crystallographica Section C: Crystal Structure Communications, vol.52, no.5, pp.1141-1143, 1996 (SCI-Expanded)
- XLVI. **Structural and spectral studies of N-trans-cinnamylidene-m-toluidine and N-trans-cinnamylidene-m-chloroaniline**  
ERCAN F., OZTAS S. S., ANCM N., Hokelek T., TUZUN M., ULKU D.  
JOURNAL OF CHEMICAL CRYSTALLOGRAPHY, vol.26, no.3, pp.243-247, 1996 (SCI-Expanded)
- XLVII. **Crystal and molecular structure of 3,3-dichlor-1-(p-chlorophenyl)-4-phenyl-2-azetidinone, C<sub>15</sub>H<sub>10</sub>Cl<sub>3</sub>NO**  
Ercan F., Ulku D., Guner V.  
ZEITSCHRIFT FUR KRISTALLOGRAPHIE, vol.211, no.10, pp.735-736, 1996 (SCI-Expanded)
- XLVIII. **Crystal structure of (beta-benzimidazolyl)proponoic acid, C<sub>10</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub>**  
Ercan F., Ulku D., Pekmez K.  
ZEITSCHRIFT FUR KRISTALLOGRAPHIE, vol.211, no.10, pp.733-734, 1996 (SCI-Expanded)
- XLIX. **AMINOLYSIS OF P-TRICHLORO-N-DICHLOROPHOSPHORYLMONOPHOSPHAZENE AND THE CRYSTAL-STRUCTURE OF 1-(DICHLOROPHOSPHINYL)-2-CHLORO-2,2-BIS(DIISOPROPYLAMINO)PHOSPHAZINE**  
KILIC Z., GUNDUZ N., YILDIZ M., KILIC A., MOR S., ERCAN F., HOKELEK T., ULKU D.  
HETEROATOM CHEMISTRY, vol.5, no.4, pp.349-357, 1994 (SCI-Expanded)

## Articles Published in Other Journals

- I. **N N Bis 3 5 dinitrosalicylidene 1 3 propane diaminato bis 3 4 dimethylpyridine nickel II dioxane solvate**  
ARICI C., ERCAN F., ATAKOL O., BAŞGUT Ö.  
Analytical Sciences. March, vol.18, pp.375-376, 2002 (Peer-Reviewed Journal)
- II. **3,3-Dichloro-4-(p-methoxyphenyl)-1-phenyl-2-azetidinone**  
ERCAN F., Ülkü D., Güner V.  
Acta Crystallographica Section C: Crystal Structure Communications, vol.52, no.7, pp.1779-1780, 1996 (Scopus)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. X ray Crystallography at Hacettepe University Conference on Frontiers of Chemical Sciences II  
Research and Education in the Middle East Orta Doğu da Araştırma ve Eğitim  
ÜLKÜ D., ERCAN F., ARICI C., ATAKOL O.  
Orta Doğu'da Araştırma ve Eğitim, Malta, 5 - 10 November 2005
- II. The effects of excitation frequency on the structural electrical and optical properties of ZnO thin films World Year of Physics 2005  
KAVASOĞLU N., ERCAN F., GÜNGÖR T.  
Turkish Physical Society 23rd International Physics Congress., Muğla, Turkey, 13 - 16 September 2005
- III. Bir İki ve Üç Çekirdekli Schiff Bazlı Fe<sub>2</sub> ve Fe<sub>3</sub> Komplekslerinin Yapısal Özellikleri  
ATEŞ B. M., SÖZERİ H., NAZIR H., ERCAN İ., ATAKOL O., ERCAN F.  
Türk Fizik Derneği 22. Kongresi, BODRUM, Turkey, 14 - 17 September 2004
- IV. Yeni Bir Dört Çekirdekli Bakır II Oksijen Taşıyıcı Kompleks  
KURTARAN R., DURMUŞ S., ERCAN İ., ERCAN F., ATAKOL O.  
XVIII. Ulusal Kimya Kongresi, Kars, Turkey, 5 - 09 August 2004
- V. METEK Projesi Meslek Yüksekokullarında Kalite Mevcut Durum Sorunlar ve Çözüm Önerileri METEK toplantısı YÖK Temsilcisi Çağrılı Konuşmacı ve Panelist Hacettepe Modeli Hitit Üniversitesi  
ERCAN F.  
METEK toplantısı, YÖK Temsilcisi, Turkey, 6 - 07 March 2004
- VI. Structural and spectral studies of N trans cinnamylidene m toluidine and N trans cinnamylidene m chloro aniline  
ERCAN F., ÖZTAŞ S. G., ANCIN N., HÖKELEK T., TÜZÜN M., ÜLKÜ D.  
35th IUPAC Congress, İstanbul, Turkey, 14 August 1995 - 19 August 1999

## **Metrics**

Publication: 57  
Citation (WoS): 570  
Citation (Scopus): 578  
H-Index (WoS): 14  
H-Index (Scopus): 14

## **Non Academic Experience**

Professional Organization, Hacettepe University, Fizik Mühendisliği Bölümü