

# **Prof. ALİ BAYRİ**

## **Personal Information**

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## **Education Information**

Doctorate, Bath Spa University College, School Of Physics, Physics, United Kingdom 1989 - 1993  
Undergraduate, Inonu University, Fen-Edebiyat Fakültesi, Fizik, Turkey 1981 - 1985

## **Foreign Languages**

English, B2 Upper Intermediate

## **Research Areas**

Physics, Atomic and Molecular Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

## **Academic Titles / Tasks**

Professor, Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2012 - Continues  
Professor, Adiyaman University, Faculty Of Arts And Sciences, Department Of Physics, 2007 - 2012

## **Academic and Administrative Experience**

Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2014 - Continues  
Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2013 - Continues  
Inonu University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2012 - Continues  
Adiyaman University, Fen-Edebiyat Fakültesi, 2007 - 2012  
Inonu University, Akçadağ Meslek Yüksekokulu, 2002 - 2007

## **Advising Theses**

BAYRİ A., Sıvı kristaller, genel özellikleri, sıvı kristallerin sentezi ve uygulama alanları, Postgraduate, Z.EKİCİ(Student), 2014  
BAYRİ A., FMF hastalığının (Ailesel Akdeniz Ateşi) pürin-pirimidin dalgalanmaları ve DNA, Postgraduate, Ö.FİLAZİ(Student), 2010

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

- I. **Magnetic Properties and Environmental Temperature Effects on Battery Performance of Na<sub>0.67</sub>Mn<sub>0.5</sub>Fe<sub>0.5</sub>O<sub>2</sub>**  
ALTIN S., BAYRİ A., ALTIN E., Oz E., YAŞAR S., Altundag S., Harfouche M., AVCI S.  
ENERGY TECHNOLOGY, vol.9, no.5, 2021 (SCI-Expanded)
- II. **Investigation of Ti-substitution effects on structural and electrochemical properties of Na(0.)<sub>(67)</sub>Mn(0)(.)<sub>(5)</sub>Fe(0)(.)<sub>(5)</sub>O<sub>(2)</sub>batterycells**  
ALTIN S., Altundag S., ALTIN E., Oz E., Harfouche M., BAYRİ A.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.44, no.14, pp.11794-11806, 2020 (SCI-Expanded)
- III. **LiNi<sub>0.8</sub>Co<sub>0.15</sub>Ti<sub>0.05</sub>O<sub>2</sub>: synthesis by solid state reaction and investigation of structural and electrochemical properties with enhanced battery performance**  
Bayri A., Gocer E., Altin E., Altundag S., Oz E., Harfouche M., Altin S., Avci S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.22, pp.20527-20538, 2020 (SCI-Expanded)
- IV. **An investigation of the improvement in energy storage performance of Na<sub>(2/3)</sub>Mn<sub>(1/2)</sub>Fe<sub>(1/2)</sub>O<sub>(2)</sub>by systematic Al-substitution**  
Altin S., Altundag S., Altin E., Harfouche M., Bayri A.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.17, pp.14784-14794, 2020 (SCI-Expanded)
- V. **An attempt to understand the observed plateau of the magnetization in tetranuclear iron(II) complexes of thiocalixarene macrocycles**  
Bayri A., BAKIR H. G., SÜLÜ M., KARAKAPLAN M.  
PRAMANA-JOURNAL OF PHYSICS, vol.74, no.3, pp.391-397, 2010 (SCI-Expanded)
- VI. **HIGH PROBABILITY OF LARGE ORBITAL ANGULAR MOMENTUM CONTRIBUTION TO THE MAGNETIC MOMENT OF COBALT(II) ION IN NEWLY REPORTED MACROCYCLIC COMPLEX CONTAINING AMIDE, IMINE AND SECONDARY AMINE FUNCTIONS**  
BAYRİ A., Aytekin O.  
REVIEWS IN INORGANIC CHEMISTRY, vol.28, no.3, pp.203-216, 2008 (SCI-Expanded)
- VII. **Magnetochemistry of some trinuclear Co(II) thiocarboxylates**  
Bayri A., Aytekin O., SÜLÜ M., KARAKAPLAN M.  
MODERN PHYSICS LETTERS B, vol.22, no.9, pp.677-684, 2008 (SCI-Expanded)
- VIII. **Sizeable amount of antiferromagnetic exchange interactions in newly reported dimeric cobalt (II) complex of the antiprime Schiff base of 3-formylsalicylic acid**  
AVCU F. M., AYTEKİN O., KARAKAPLAN M., BAYRI A.  
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.10, no.3, pp.589-591, 2008 (SCI-Expanded)
- IX. **Theoretical approach to the magnetic properties of Mn(II), Cr(III), and Cu(II) complexes in the newly reported 12-and 15-membered macrocyclic ligands**  
Bayri A., Karakaplan M.  
PRAMANA-JOURNAL OF PHYSICS, vol.69, no.2, pp.301-306, 2007 (SCI-Expanded)
- X. **Huge antiferromagnetic exchange interactions in newly reported copper(II) complex of the antiprime Schiff base of 3-formylsalicylic acid**  
Bayri A.  
MODERN PHYSICS LETTERS B, vol.20, no.28, pp.1803-1807, 2006 (SCI-Expanded)
- XI. **Theoretical approach to the magnetic properties of Co(II) ion in CoL<sub>2</sub> center dot 5H<sub>2</sub>O compound (L is 5-chloro-2-methoxybenzoate)**  
BAYRI A., Sulu M., ISIK F.  
JOURNAL OF STRUCTURAL CHEMISTRY, vol.47, no.5, pp.869-874, 2006 (SCI-Expanded)
- XII. **Insignificant next nearest neighbor effect in Ni(II)-[2 x 2] grid**  
Bayri A.  
MODERN PHYSICS LETTERS B, vol.20, no.16, pp.971-979, 2006 (SCI-Expanded)
- XIII. **Magnetic behavior of trinuclear vanadium(II)-diamine complexes. Part 2. Large intramolecular antiferromagnetic exchange interactions in a triangular unit**

- Bayri A., Sulu M.  
 JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.16, no.2, pp.185-188, 2006  
 (SCI-Expanded)
- XIV. **Antiferromagnetic exchange interactions. Part 1. Newly reported nickel(II) complex of the antiprime schiff base of 3-formylsalicylic acid**  
 Bayri A.  
 JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.16, no.1, pp.97-99, 2006 (SCI-Expanded)
- XV. **Magnetic properties of crystalline gamma-MnS thin films**  
 GUMUS C., BAYRI A., ULUTAS C., Karakaplan M., UFUKTEPE Y.  
 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, vol.8, no.1, pp.261-265, 2006 (SCI-Expanded)
- XVI. **Surprising magnetic behavior of cobalt(II) ion in recently prepared macrocycle complexes. Distortion versus intermolecular antiferromagnetic exchange interactions**  
 Bayri A., Bahadir A. R., Avcu F. M., AYTEKIN O.  
 TRANSITION METAL CHEMISTRY, vol.30, no.8, pp.987-991, 2005 (SCI-Expanded)
- XVII. **UV-light absorption properties of Cr-doped polyethyleneglycol (PEG)/gamma-glycidoxypropyltrimethoxysilane (GPTMS)/chelated-titanium coating materials prepared by the sol-gel process**  
 Sayilkhan F., ASILTURK M., ICDUYGU G., BAYRI A., SAYILKAN H.  
 JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.15, no.2, pp.281-285, 2005  
 (SCI-Expanded)
- XVIII. **SPIN IMPURITIES IN NONCOLLINEAR ANTIFERROMAGNETS WITH MN<sub>3</sub>PT AS AN EXAMPLE**  
 LONG M., BAYRI A.  
 JOURNAL OF PHYSICS-CONDENSED MATTER, vol.5, no.41, pp.7719-7736, 1993 (SCI-Expanded)
- XIX. **LONG-RANGE MAGNETIC-IMPURITIES IN GAMMA-MNCU ALLOYS**  
 LONG M., BAYRI A.  
 JOURNAL OF PHYSICS-CONDENSED MATTER, vol.5, no.2, 1993 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Magnetic Properties of Eu<sup>3+</sup> ions for different surroundings: An investigation of the spin-orbit coupling in the structures**  
 ALTIN E., BAYRİ A.  
 chemistry research journal, vol.4, no.5, pp.18-22, 2019 (Peer-Reviewed Journal)
- II. **Why is clozapine more effective than other atypical antipsychotics? DFT and Molecular Docking Approach**  
 ÜNAL S., KARAKAPLAN M., ÖZ E., YILMAZ İ., ALTIN S., BAYRİ A.  
 Bartın University International Journal of Natural and Applied Sciences, vol.2, no.2, 2019 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Effects of boron substitution on structure and morphology of NaMn<sub>2</sub>O<sub>4</sub> nanorods**  
 AVCI S., DEMİREL S., OZ E., ALTIN E., ALTIN S., BAYRİ A.  
 12th Nanoscience and Nanotechnology conference, NanoTr-12, 3 - 05 June 2016
- II. **Computational Investigation Of Magnetic Interactions In Polynuclear Fe 2 Complexes**  
 BAKIR H. G., BAYRİ A.  
 Sözlü Sunum, International Conference On Superconductivity And Magnetism 2016, fethiye, Turkey, 24 - 30 April 2016

## **Supported Projects**

BAYRİ A., Project Supported by Higher Education Institutions, MOLEKÜLER MANYETİK MALZEMELERDE ETKİLEŞME TÜRLERİNİN TEMEL İLKELER YÖNTEMİ İLE ARAŞTIRILMASI, 2016 - Continues

ALTIN S., BAYRİ A., ALTUNDAĞ S., Project Supported by Higher Education Institutions, Bakır bazlı Na-iyon pillerin geliştirilmesi, 2019 - 2020

BAYRİ A., ALTIN S., Project Supported by Higher Education Institutions, Çevre dostu ve düşük maliyetli Na-bazlı katotların sıcaklığı bağlı pil performanslarının belirlenmesi, 2019 - 2020

BAYRİ A., GÖÇER E., Project Supported by Higher Education Institutions, Şarjedilebilir piller için  $\text{LiNi}_{0.80}\text{Co}_{0.15}\text{M}_{0.0502}$  ( $M=\text{Al},\text{Si},\text{Ti}$ ) üretimi ve manyetik özellikleri ile pil performansı arasındaki korelasyonun araştırılması, 2018 - 2019

BAYRİ A., BULUT F., ALTIN S., ALTIN E., ADIGÜZEL H. İ., Project Supported by Higher Education Institutions, Na-iyon piller için demir-krom içeren elektrot geliştirilmesi, 2018 - 2019

ALTIN S., ÖNAL Y., DEMİREL S., BAYRİ A., YAŞAR S., ALTIN E., BULUT F., Project Supported by Higher Education Institutions, Şarjedilebilir mini/mikro-pil üretimi ve elektrokimyasal performanslarının belirlenmesi, 2017 - 2019

BAYRİ A., Project Supported by Higher Education Institutions, BAZI DİNÜKLEER FeIII KOMPLEKSLERİN ELEKTRONİK YAPILARININ DFT İLE İNCELENMESİ, 2016 - 2019

BAYRİ A., Other International Funding Programs, Mikrobiyal Yakıt Hücresi İçin Yeni Geliştirilen Elektrot Yüzeyinde Oluşan Ekzoelektrojen Bakterilerin Biyofilm Karakteristiklerinin İncelenmesi, 2015 - 2017

BAYRİ A., Project Supported by Higher Education Institutions, İNÖNÜ ÜNİVERSİTESİ FEN EDEBİYATFAKÜLTESİ FİZİK BÖLÜM LABORATUVARLARI YENİLEME VE İYİLEŞTİRME, 2015 - 2017

BAYRİ A., Project Supported by Higher Education Institutions, FE BAZLI MAKROMOLEKÜLER MAGNETLERDE EXCHANGE ETKİLEŞME TÜRLERİNİN TEORİK ANALİZİ, 2015 - 2016

## **Metrics**

Publication: 40

Citation (WoS): 196

Citation (Scopus): 186

H-Index (WoS): 9

H-Index (Scopus): 8