

## Asst. Prof. METE KAAN EKMEKÇİ

### Personal Information

**Office Phone:** [+90 216 346 4553](tel:+902163464553) Extension: 1334

**Email:** mekmekci@marmara.edu.tr

**Web:** <https://avesis.marmara.edu.tr/mekmekci>

**Address:** Marmara Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü Oda No:GZFC 016 Kuyubası-Kadıköy-İST.

### International Researcher IDs

**ORCID:** 0000-0003-2847-3312

**Yoksis Researcher ID:** 26843

### Biography

1972 yılında İstanbul'da doğdu. 1989 yılında Kabataş Erkek Lisesi'nden mezun oldu. 1994 yılında İstanbul Üniversitesi Mühendislik Fakültesi Kimya Mühendisliğini bitirdi. 1997 yılında aynı üniversitenin Kimya bölümü Fiziksel kimya programında yüksek lisansını tamamladı. 1998 yılında Marmara Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü'nde Uzman kadrosunda göreve başladı. 2012 yılında Marmara Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü Anorganik Kimya Programı'nda doktora eğitimini tamamladı. 2017 yılından beri Marmara Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü Anorganik Kimya Anabilim Dalı'nda Doktor Öğretim Üyesi olarak görev yapmaktadır. Evli ve iki çocuk sahibidir.

### Education Information

Doctorate, Marmara University, Faculty of Arts and Sciences, Chemistry, Turkey 1998 - 2012

Postgraduate, Istanbul University, Mühendislik Fakültesi, Kimya Bölümü, Turkey 1994 - 1997

Undergraduate, Istanbul University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 1990 - 1994

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Katkılı MNb206 ( $M = \text{Co, Cd, Ni}$ ) kolombit bileşiklerinin ergimiş tuz yöntemi ile sentezi ve karakterizasyonu, Marmara Üniversitesi, Faculty of Arts and Sciences, Chemistry, 2012

Postgraduate, Denizde petrol kirliliğinin adsorpsiyon yöntemi ile giderilmesi, İstanbul Üniversitesi, Mühendislik Fakültesi, Kimya Bölümü, 1997

### Research Areas

Natural Sciences, Engineering and Technology

## **Academic titles / Tasks**

Assistant Professor, Marmara University, Faculty of Arts and Sciences, Chemistry, 1998 - Continues

## **Courses**

Genel Kimya II, Undergraduate, 2017 - 2018  
Sinai Kimya, Undergraduate, 2018 - 2019  
Anorganik Kimya Laboratuvarı II, Undergraduate, 2017 - 2018  
Genel Kimya II Lab., Undergraduate, 2017 - 2018  
Bor ve Silisyum Kimyası, Undergraduate, 2017 - 2018  
Genel Kimya, Undergraduate, 2018 - 2019  
Anorganik Kimya Laboratuvarı I, Undergraduate, 2018 - 2019  
Ahşap Kimyası ve Koruma, Undergraduate, 2017 - 2018  
Bor ve Silisyum Kimyası, Undergraduate, 2017 - 2018  
Anorganik Kimya Laboratuvarı II, Undergraduate, 2017 - 2018  
Anorganik Kimya I, Undergraduate, 2017 - 2018  
Genel Kimya, Undergraduate, 2017 - 2018  
Bor ve Silisyum Kimyası, Postgraduate, 2017 - 2018  
Genel Kimya I Lab., Undergraduate, 2017 - 2018  
Genel Kimya I, Undergraduate, 2017 - 2018  
Anorganik Kimya I, Undergraduate, 2017 - 2018  
Anorganik Sinai Kimya, Undergraduate, 2017 - 2018  
Bitirme Ödevi, Undergraduate, 2017 - 2018

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

- I. **Effect of boron incorporation on the structural, morphological, and spectral properties of CdNb<sub>206</sub>:Dy<sup>3+</sup> phosphor synthesized by molten salt process**  
İlhan M., EKMEKÇİ M. K., Gülcü L. F.  
Materials Science and Engineering: B, vol.298, 2023 (SCI-Expanded)
- II. **Tunable blue-green emission properties of Tb<sup>3+</sup> doped barium tantalate phosphor**  
EKMEKÇİ M. K.  
Bulletin of Materials Science, vol.46, no.3, 2023 (SCI-Expanded)
- III. **Judd-Ofelt parameters and X-ray irradiation results of MnNb<sub>206</sub>:Eu<sup>3+</sup> (M = Sr, Cd, Ni) phosphors synthesized via a molten salt method**  
Ilhan M., EKMEKÇİ M. K., Keskin I. C.  
RSC ADVANCES, vol.11, no.18, pp.10451-10462, 2021 (SCI-Expanded)
- IV. **Structural and Magnetic Properties of -Doped Powders**  
TOPKAYA R., BOYRAZ C., EKMEKÇİ M. K.  
JOURNAL OF LOW TEMPERATURE PHYSICS, vol.190, pp.244-255, 2018 (SCI-Expanded)
- V. **Electrospinning, preparation and photoluminescence properties of CoNb<sub>206</sub>:Dy<sup>3+</sup> incorporated polyamide 6 composite fibers**  
ERDEM R., İlhan M., EKMEKÇİ M. K., Erdem O.  
APPLIED SURFACE SCIENCE, vol.421, pp.240-246, 2017 (SCI-Expanded)
- VI. **Photoluminescence characterization and heat treatment effect on luminescence behavior of BaTa<sub>206</sub>:Dy<sup>3+</sup> phosphor**  
İlhan M., EKMEKÇİ M. K., Mergen A., YAMAN C.  
INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY, vol.14, no.6, pp.1134-1143, 2017 (SCI-Expanded)
- VII. **Microstructural and Radioluminescence Characteristics of Nd<sup>3+</sup> Doped Columbite-Type SrNb<sub>206</sub>**

**Phosphor**

EKMEKÇİ M. K., İlhan M., EGE A., AYVACIKLI M.

JOURNAL OF FLUORESCENCE, vol.27, no.3, pp.973-979, 2017 (SCI-Expanded)

**VIII. Structural and Near-Infrared Properties of Nd<sup>3+</sup> Activated Lu<sub>3</sub>Nb<sub>2</sub>O<sub>7</sub> Phosphor**

İlhan M., EKMEKÇİ M. K., ORALTAY R. G., BAŞAK A. S.

JOURNAL OF FLUORESCENCE, vol.27, no.1, pp.199-203, 2017 (SCI-Expanded)

**IX. Study on molten salt synthesis, microstructural determination and white light emitting properties of CoNb<sub>2</sub>O<sub>6</sub>:Dy<sup>3+</sup> phosphor**

EKMEKÇİ M. K., İlhan M., Guleryuz L. F., Mergen A.

OPTIK, vol.128, pp.26-33, 2017 (SCI-Expanded)

**X. Synthesis and Optical Characterization of Red-Emitting BaTa<sub>2</sub>O<sub>6</sub>:Eu<sup>3+</sup> Phosphors**

İlhan M., EKMEKÇİ M. K., Mergen A., YAMAN C.

JOURNAL OF FLUORESCENCE, vol.26, no.5, pp.1671-1678, 2016 (SCI-Expanded)

**XI. Synthesis and Optical Properties of Novel Red-Emitting PbNb<sub>2</sub>O<sub>6</sub>: Eu<sup>3+</sup> Phosphors**

İlhan M., Ekmekçi M. K., Demir A., Demirer H.

JOURNAL OF FLUORESCENCE, vol.26, pp.1637-1643, 2016 (SCI-Expanded)

**XII. Investigation of Boron-doping Effect on Photoluminescence Properties of CdNb<sub>2</sub>O<sub>6</sub>: Eu<sup>3+</sup> Phosphors**

BAŞAK A. S., EKMEKÇİ M. K., ERDEM M., İlhan M., Mergen A.

JOURNAL OF FLUORESCENCE, vol.26, no.2, pp.719-724, 2016 (SCI-Expanded)

**XIII. Synthesis, characterization and photoluminescence properties of Eu<sup>3+</sup> doped columbite CdNb<sub>2</sub>O<sub>6</sub>**

EKMEKÇİ M. K., ERDEM M., İlhan M., BAŞAK A. S., Mergen A.

OPTIK, vol.127, no.4, pp.1918-1921, 2016 (SCI-Expanded)

**XIV. Structural and optical properties of Nd<sup>3+</sup> doped columbite SrNb<sub>2</sub>O<sub>6</sub>**

EKMEKÇİ M. K., ERDEM M., BAŞAK A. S., DANIŞ Ö.

OPTIK, vol.127, no.8, pp.4123-4126, 2016 (SCI-Expanded)

**XV. Bright white up-conversion emission from sol-gel derived Yb<sup>3+</sup>/Er<sup>3+</sup>/Tm<sup>3+</sup>: Y<sub>2</sub>SiO<sub>5</sub> nanocrystalline powders**

ERDEM M., Erguzel O., EKMEKÇİ M. K., ÖRÜCÜ H., Çinkaya Yılmaz H., GENÇ S., Mergen A., Eryürek G., Di Bartolo B. CERAMICS INTERNATIONAL, vol.41, no.10, pp.12805-12810, 2015 (SCI-Expanded)

**XVI. Structural and Luminescence Properties of Sm<sup>3+</sup> Doped TTB -Type BaTa<sub>2</sub>O<sub>6</sub> Ceramic Phosphors**

EKMEKÇİ M. K., İlhan M., BAŞAK A. S., DENİZ S.

JOURNAL OF FLUORESCENCE, vol.25, no.6, pp.1757-1762, 2015 (SCI-Expanded)

**XVII. Structural and Spectroscopic Properties of -Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub> Nanopowders Activated with Nd<sup>3+</sup> Ions**

ERDEM M., EKMEKÇİ M. K., ÖRÜCÜ H., Bilir G.

INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY, vol.12, no.5, pp.1016-1019, 2015 (SCI-Expanded)

**XVIII. Synthesis and photoluminescence properties of Dy<sup>3+</sup> doped white light emitting CdTa<sub>2</sub>O<sub>6</sub> phosphors**

İlhan M., EKMEKÇİ M. K.

JOURNAL OF SOLID STATE CHEMISTRY, vol.226, pp.243-249, 2015 (SCI-Expanded)

**XIX. Molten salt synthesis, visible and near-IR region spectral properties of europium or neodymium doped CoNb<sub>2</sub>O<sub>6</sub> columbite niobate**

EKMEKÇİ M. K., ERDEM M., BAŞAK A. S.

DALTON TRANSACTIONS, vol.44, no.12, pp.5379-5385, 2015 (SCI-Expanded)

**XX. Concentration effect of Er<sup>3+</sup> ions on structural and spectroscopic properties of CdNb<sub>2</sub>O<sub>6</sub> phosphors**

Ghafouri S. A., ERDEM M., EKMEKÇİ M. K., Mergen A., Ozen G.

MATERIALS RESEARCH BULLETIN, vol.60, pp.562-565, 2014 (SCI-Expanded)

**XXI. Molten salt synthesis and spectral properties of Nd<sup>3+</sup> doped CdNb<sub>2</sub>O<sub>6</sub> columbite phosphors**

EKMEKÇİ M. K., ERDEM M., Mergen A., Ozen G., Di Bartolo B.

## Articles Published in Other Journals

- I. **Structural and Dielectric Properties of Eu<sup>3+</sup>, B<sup>3+</sup> co-doped CoNb<sub>2</sub>O<sub>6</sub> Ceramic**  
İLHAN M., EKMEKÇİ M. K., ESMER K.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.11, no.2, pp.765-774, 2024 (Peer-Reviewed Journal)
- II. **Structural Properties, Photoluminescence, and Judd-Ofelt Parameters of Eu<sup>3+</sup>- Doped CoNb<sub>2</sub>O<sub>6</sub> Phosphor**  
ilhan m., Guleryuz L. f., Ekmekçi M. K.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.10, no.3, pp.745-756, 2023 (Scopus)
- III. **Influence of Europium Doping on the Crystallization, Morphology, and Cathodoluminescent Properties of PbNb<sub>2</sub>O<sub>6</sub>:Eu<sup>3+</sup> Phosphors**  
EKMEKÇİ M. K.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.9, no.4, pp.1129-1140, 2022 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **INVESTIGATION OF PHYSICAL PROPERTIES OF EU<sub>3</sub> DOPED COLUMBITE CdNb<sub>2</sub>O<sub>6</sub> POWDERS**  
GÜLER A., BOYRAZ C., EKMEKÇİ M. K.  
ICAPM 2019 MADRID, 22 - 23 November 2019
- II. **Photoluminescence and optical temperature sensing properties of Er<sub>3</sub>/Yb<sub>3</sub> codoped cadmium niobate**  
ERDEM M., CANTÜRK S. B., EKMEKÇİ M. K., ÖRÜCÜ H.  
35. International Turkish Physics Congress, 4 - 08 September 2019
- III. **Structural and Optical Properties of Nd<sub>3</sub> Doped Bata<sub>2</sub>O<sub>6</sub> Phosphor**  
İLHAN M., EKMEKÇİ M. K., ÇATALGÖL Z., SAMUR R.  
8. International Advanced Technologies Symposium, 19 - 22 October 2017, vol.1, pp.4224-4227
- IV. **Physical Properties of Eu<sub>3</sub> Doped Columbite CdNb<sub>2</sub>O<sub>6</sub> Powders**  
BOYRAZ C., GÜLER A., TOPKAYA R., EKMEKÇİ M. K.  
10 th international conference on magnetism and superconductivity MSM 2017, 18 - 21 September 2017
- V. **Morphology and Luminescence Characteristics of Yttriumdisilicate doped with Yb<sub>3</sub> Er<sub>3</sub> Ho<sub>3</sub> and Tm<sub>3</sub>**  
BOYRAZ C., ERDEM M., EKMEKÇİ M. K., TAV C., ERYÜREK G.  
2 nd world congress on new technologies ICNFA, 18 - 19 August 2016
- VI. **Synthesis characterization and photoluminescence properties of Er<sub>3</sub> Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub> nanophosphors**  
ERDEM M., Orucu H., EKMEKÇİ M. K.  
Applied Physics and Mathematics Rome (Italy), 25 - 27 July 2016
- VII. **Synthesis characterizations and photoluminescence properties of Er<sub>3</sub> Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub> nanophosphors**  
ERDEM M., ÖRÜCÜ H., EKMEKÇİ M. K.  
Global Conferences on Applied Physics and Mathematics Rome (Italy), ROMA, Italy, 25 - 27 July 2016
- VIII. **Structural and Optical Properties of Nd<sub>3</sub> Doped Columbite SrNb<sub>2</sub>O<sub>6</sub>**  
EKMEKÇİ M. K., ERDEM M., BAŞAK A. S., MERGEN A.  
20th International Conference on Solid Compounds of Transition Elements, SCTE-2016, 11 - 15 April 2016
- IX. **Investigation of Boron doping effect on photoluminescence properties of Dy<sub>3</sub> CdNb<sub>2</sub>O<sub>6</sub> phosphors**  
BAŞAK A. S., ERDEM M., EKMEKÇİ M. K.  
20th International Conference on Solid Compounds of Transition Elements, SCTE-2016, Zaragoza, Spain, 11 - 15 April 2016
- X. **Structural and Spectroscopic Properties of Er<sub>3</sub> CdNb<sub>2</sub>O<sub>6</sub> Phosphors**

- ERDEM M., EKMEKÇİ M. K., SANAZ G., MERGEN A., ERYÜREK G.  
NATO Advanced Study Institute : NANO-STRUCTURES FOR OPTICS AND PHOTONICS. Erice, Sicily, Italy, 25 - 27 September 2015
- XI. **White Upconversion Emission From Yb<sub>3</sub> Er<sub>3</sub> Tm<sub>3</sub> Y<sub>2</sub>SiO<sub>5</sub> Nano Powders**  
ERDEM M., OLGUN E., EKMEKÇİ M. K., ÇINKAYA YILMAZ H., ÖRÜCÜ H., MERGEN A., ERYÜREK G., BALDASSARE D. B. International Powder Porous Materials 2015, 15 September 2015
- XII. **Phase dependent Spectroscopic properties of Neodymium or Erbium doped Yttriumdisilicates**  
ERDEM M., EKMEKÇİ M. K., COLLINS J., TAV C., MERGEN A., ERYÜREK G., Di Bartolo B. International Powder Porous Materials, 15 - 19 September 2015
- XIII. **Synthesis and Optical Properties of Nd<sub>3</sub> doped Lu<sub>3</sub>NbO<sub>7</sub> Phosphors**  
EKMEKÇİ M. K., ERDEM M. Luminescence and ESR Dosimetry (LumiDoz 9), 2 - 04 September 2015
- XIV. **Synthesis and Photoluminescence Properties of Ba<sub>2</sub>Be<sub>2</sub>B<sub>2</sub>O<sub>7</sub> Sm 3**  
PEKGÖZLÜ İ., EKMEKÇİ M. K. Luminescence and ESR Dosimetry (LumiDoz 9), 2 - 04 September 2015
- XV. **Synthesis and Optical Properties of Nd<sub>3</sub> doped Ln<sub>3</sub>NbO<sub>7</sub> Phosphors**  
EKMEKÇİ M. K., ERDEM M. LUMIDOZ 9: THE 9TH INTERNATIONAL CONFERENCE ONLUMINESCENCE AND ESR DOSIMETRY, Turkey, 02 September 2014 - 04 September 2015
- XVI. **Synthesis and Luminescent Properties of Europium Doped Rhombohedral type PbNb<sub>2</sub>O<sub>6</sub> phosphors**  
EKMEKÇİ M. K., ERDEM M. LUMIDOZ 9: THE 9TH INTERNATIONAL CONFERENCE ONLUMINESCENCE AND ESR DOSIMETRY, Turkey, 2 - 04 September 2015
- XVII. **Upconversion White Blue and Red emission from Yb<sub>3</sub> Er<sub>3</sub> Tm<sub>3</sub> Y<sub>2</sub>SiO<sub>5</sub> nanocrystalline powders**  
OLGUN E., ERDEM M., EKMEKÇİ M. K., ERYÜREK G., BALDASSARE D. B. American Physical Society New England Section Spring 2015 Meeting, 24 - 25 April 2015
- XVIII. **Structural And Luminescence Properties Of CdNb<sub>2</sub>O<sub>6</sub> Er<sub>3</sub>**  
ERDEM M., EKMEKÇİ M. K., GHAFOURI S., MERGEN A., ERYÜREK G. Nato Advanced Study Institute On Nano-Structures For Optics And Photonics, 4 July - 19 April 2013
- XIX. **Properties of Erbium doped Cadmium Niobate Powders**  
ERYÜREK G., ERDEM M., EKMEKÇİ M. K., MERGEN A. Complex Luminescence Phenomena in Inorganic Materials, Erice, Sicily, Sicily, Italy, 30 - 15 August 2014
- XX. **Micro Structure and Luminescence properties of Er<sub>3</sub> doped cdnb<sub>2</sub>O<sub>6</sub> Columbite Oxides Synthesised by Molten Salt Technique**  
SANAZ G., ERDEM M., EKMEKÇİ M. K., MERGEN A., GÖKÇE H., ERYÜREK G. International Porous and Powder Materials, 3 - 06 September 2013
- XXI. **Spectroscopic Properties of Nd<sub>3</sub> CdNb<sub>2</sub>O<sub>6</sub> Phosphors**  
ERDEM M., EKMEKÇİ M. K., MERGEN A., ERYÜREK G., BALDASSARE D. B. International Porous and Powder Materials, 3 - 06 September 2013
- XXII. **Molten salt synthesis and luminescent properties of europium doped NiNb<sub>2</sub>O<sub>6</sub> columbites**  
EKMEKÇİ M. K., MERGEN A. Ulusal Kimya Kongresi, Turkey, 1 - 06 October 2012
- XXIII. **Effect of Boron doping on the Luminescence properties of Europium doped CdNb<sub>2</sub>O<sub>6</sub> Columbite Oxides**  
EKMEKÇİ M. K., MERGEN A. International Symposium on Boron, Borides and Related Materials, 11 - 17 September 2011

## Metrics

Publication: 47

Citation (WoS): 122

Citation (Scopus): 193

H-Index (WoS): 6

H-Index (Scopus): 10