

## Res. Asst. PhD Hande Rezan Pekbelgin Karaođlu

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: Y-6639-2018

ScopusID: 15132390700

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### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2012 - 2012

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2001 - 2004

Undergraduate, Istanbul Technical University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 1996 - 2001

### Foreign Languages

English

### Dissertations

Doctorate, Dietilaminofenoksi grupları içeren oktasüstitüe ftalosiyantinler, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2012

Postgraduate, Tetrapiridil Ftalosiyantinlerin Donör Özelliklerinin İncelenmesi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2004

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Research Assistant, Istanbul Technical University, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2004 - Continues

### Courses

General Chemistry 1, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019

General Chemistry 1 Lab, Undergraduate, 2021 - 2022, 2020 - 2021, 2018 - 2019

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

- I. **Novel symmetrical and unsymmetrical fluorine-containing metallophthalocyanines: synthesis, characterization and investigation of their biological properties**  
Pekbelgin Karaoğlu H. R., Sağlam Ö., ÖZDEMİR S., GONCA S., Koçak M.  
DALTON TRANSACTIONS, vol.50, pp.9700-9708, 2021 (SCI-Expanded)
- II. **A series of asymmetric zinc (II) phthalocyanines containing fluoro and alkynyl groups: Synthesis and examination of humidity sensing performance by using QCM based sensor**  
Ahmetali E., Pekbelgin Karaoğlu H. R., Urfa Y., ALTINDAL A., Koçak M.  
MATERIALS CHEMISTRY AND PHYSICS, vol.254, 2020 (SCI-Expanded)
- III. **Investigation of Time-Kill Evaluation and Antioxidant Activities of New Tetra-Substituted Metallophthalocyanines Bearing 4-(Trifluoromethoxy)thiophenyl Groups**  
Sağlam Ö., Akin M., Pekbelgin Karaoğlu H. R., ŞAKİ N., Kocak M.  
CHEMISTRYSELECT, vol.5, no.8, pp.2522-2527, 2020 (SCI-Expanded)
- IV. **Investigation of photophysical and photochemical properties of phthalocyanines bearing fluorinated groups**  
Korkmaz E., Ahmetali E., Atmaca G. Y., Karaoğlu H. R., ERDOĞMUŞ A., Kocak M.  
MONATSHEFTE FÜR CHEMIE, vol.151, no.2, pp.181-190, 2020 (SCI-Expanded)
- V. **alpha- and beta-Substituted Metal-Free Phthalocyanines: Synthesis, Photophysical and Electrochemical Properties**  
Pekbelgin Karaoğlu H. R., Kalkan Burat A.  
MOLECULES, vol.25, no.2, 2020 (SCI-Expanded)
- VI. **Near-infrared absorbing pi-extended hexadeca substituted phthalocyanines**  
Pekbelgin Karaoğlu H. R., Atsay A., Nar I., McKee V., Koçak M., Hamuryudan E., Gül A.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1197, pp.736-741, 2019 (SCI-Expanded)
- VII. **Synthesis, Photophysical and Biological Properties of New Phthalocyanines Bearing Peripherally 4-(Trifluoromethoxy)phenoxy Groups**  
Farajzadeh N., Pekbelgin Karaoğlu H. R., Akin M., ŞAKİ N., Koçak M.  
CHEMISTRYSELECT, vol.4, no.31, pp.8998-9005, 2019 (SCI-Expanded)
- VIII. **Photophysical and photochemical properties of newly synthesized zinc(II) and chloroindium(III)phthalocyanines substituted with 3,5-bis(trifluoromethyl)phenoxy groups**  
Ahmetali E., YAŞA ATMACA G., Pekbelgin Karaoğlu H. R., ERDOĞMUŞ A., Koçak M.  
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.23, pp.960-968, 2019 (SCI-Expanded)
- IX. **BODIPY-ortho-carborane-tetraphenylethylene triad: synthesis, characterization, and properties**  
Nar I., Atsay A., Buyruk A., Pekbelgin Karaoğlu H. R., Kalkan Burat A., Hamuryudan E.  
NEW JOURNAL OF CHEMISTRY, vol.43, no.11, pp.4471-4476, 2019 (SCI-Expanded)
- X. **Antimicrobial and antioxidant properties of novel octa-substituted phthalocyanines bearing (trifluoromethoxy)phenoxy groups on peripheral positions**  
Farajzadeh N., Pekbelgin Karaoğlu H. R., Akin M., ŞAKİ N., Koçak M.  
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.23, pp.91-102, 2019 (SCI-Expanded)
- XI. **Synthesis and characterization of novel quaternized 2, 3-(diethylmethylamino)phenoxy tetrasubstituted Indium and Gallium phthalocyanines and comparison of their antimicrobial and antioxidant properties with different phthalocyanines**  
ŞAKİ N., Akin M., Atsay A., Karaoğlu H. R., Koçak M.  
INORGANIC CHEMISTRY COMMUNICATIONS, vol.95, pp.122-129, 2018 (SCI-Expanded)
- XII. **Phthalocyanines formed from several precursors: synthesis, characterization, and comparative fluorescence and quinone quenching**  
Karaoğlu H. R., Yenilmez H. Y., Koçak M.  
JOURNAL OF COORDINATION CHEMISTRY, vol.71, no.15, pp.2340-2357, 2018 (SCI-Expanded)
- XIII. **Electropolymerization of Octakis Diethylamino Substituted Metallophthalocyanines and Their Electrochromic Characterization**  
Aydemir M., KARAĞLU H. R., Kocak M., Koca A.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.162, no.3, 2015 (SCI-Expanded)

- XIV. **The synthesis and electrochemistry of novel, symmetrical, octasubstituted phthalocyanines**  
Karaoglu H. R., Koca A., Kocak M.  
SYNTHETIC METALS, vol.182, pp.1-8, 2013 (SCI-Expanded)
- XV. **Synthesis, electrochemical and spectroelectrochemical characterization of novel soluble phthalocyanines bearing chloro and quaternizable bulky substituents on peripheral positions**  
Karaoglu H. R., Koca A., Kocak M.  
DYES AND PIGMENTS, vol.92, no.3, pp.1005-1017, 2012 (SCI-Expanded)
- XVI. **Synthesis and characterization of a new tetracationic phthalocyanine**  
Karaoglu H. R. P., GUEL A., KOCAK M.  
DYES AND PIGMENTS, vol.76, no.1, pp.231-235, 2008 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Photophysical properties of a newly synthesized unsymmetrically substituted zinc phthalocyanine**  
KALKAN BURAT A., PEKBELGİN KARAOĞLU H. R.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.8, no.2, pp.623-632, 2021 (Scopus)
- II. **Synthesis and photophysical properties of usymmetrically substituted phthalocyanine-pyrene conjugate**  
PEKBELGİN KARAOĞLU H. R., KALKAN BURAT A.  
Journal of the Turkish Chemical Society Section A: Chemistry, vol.6, no.3, pp.319-328, 2019 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Nonlinear Optik Uygulamaları için 3,5-Bis(Triflorometil)Fenoksi Grupları İçeren Yeni Push-Pull Asimetrik Çinko Ftalosiyanın Sentezi ve Karakterizasyonu**  
AHMETALİ E., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
31. Ulusal Kim ya Kongresi, Turkey, 10 - 13 September 2019
- II. **Hexadeca Substituted Phthalocyanine Based Organic Field Effect Transistor**  
PEKBELGİN KARAOĞLU H. R.  
2. International Congress on Semiconductor Materials and Devices (ICSMD), Turkey, 28 - 30 August 2018
- III. **A NEW TYPE OF TETRASUBSTITUTED ZINC PHTHALOCYANINECONTAINING 3,5 - BIS(TRIFLUOROMETHYL)PHENOXY GROUPS ATPERIPHERAL POSITIONS**  
KORKMAZ E., AHMETALİ E., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
International Congress on Fundamental and Applied Sciences, Macedonia, 18 - 22 June 2018
- IV. **Synthesis, Characterization, and Spectral Properties of a Novel Symmetrical Indium Phthalocyanine**  
Farajzadeh N., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
International Congress on Fundamental and Applied Sciences, Macedonia, 18 - 22 June 2018
- V. **Design and Synthesis of Phthalocyanines for Non-Linear Optical Applications**  
PEKBELGİN KARAOĞLU H. R.  
20. Frühjahrssymposium-FJS, konstanzt, Germany, 21 - 24 March 2018
- VI. **Synthesis, Characterization and Spectral Properties of a Novel Symmetrical Palladium Phthalocyanine**  
Farajzadeh N., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
20. Frühjahrssymposium-FJS, konstanzt, Germany, 21 - 24 March 2018
- VII. **Nonlinear Optical Absorption and Refraction Properties of Zinc Phthalocyanine Compounds**  
ERDEM M., EDEŞ HUYAL F. K., ERYÜREK G., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
The congress of International Turkish World Engineering and Science, 7 - 10 December 2017
- VIII. **Synthesis And Characterization Of New Tetrasubstituted Phthalocyanines With Fluoride Groups For Third-Order Nonlinear Optical Applications**

Pekbelgin Karaoğlu H. R., Koçak M.

4. International Turk-Pak Conference on Chemical Sciences, Konya, Turkey, 26 - 28 October 2017

- IX. **Novel Phthalocyanines for Nonlinear Optic Applications**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
8. International Advanced Technologies Symposium, 19 - 22 October 2017
- X. **A New Zinc Phthalocyanine Substituted with 4-(Trifluoromethoxy)-Thiophenol Groups**  
SAĞLAM Ö., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
3. International Turkic World Conference on Chemical Sciences and Technologies, 10 - 13 September 2017
- XI. **Synthesis, Characterization, and Spectral Properties of a Novel Octasubstituted Zinc Phthalocyanine**  
Farajzadeh N., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
19. JCF-Frühjahrssymposium, 29 March - 01 April 2017
- XII. **Synthesis And Characterization Of A New Palladium Phthalocyanine Substituted With 3 5 Bis Trifluoromethyl Phenoxy Groups**  
Ahmetali E., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
The 11th International Symposium on Macrocyclic and Supramolecular Chemistry, Seoul, South Korea, 10 - 14 July 2016
- XIII. **A Novel Octasubstituted Zinc Phthalocyanine Containing 4 Trifluoromethoxy Thiophenol Groups**  
PEKBELGİN KARAOĞLU H. R., SAĞLAM Ö., KOÇAK M.  
ISMEC 2016 International Symposium On Metal Complexes, Barcelona, Spain, 7 - 10 June 2016
- XIV. **Synthesis Characterization And Spectral Properties of A Novel Tetrasubstituted Zinc Phthalocyanine**  
Farajzadeh N., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
ISMEC 2016 International Symposium On Metal Complexes, Barcelona, Spain, 7 - 10 June 2016
- XV. **New Type Of Phthalocyanines Containing 3 5 Bis Trifluoromethyl Phenoxy Groups At Peripheral Positions**  
Ahmetali E., PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XVI. **Synthesis and Photophysical Properties of Octasubstituted Zinc(II)Phthalocyanine**  
PEKBELGİN KARAOĞLU H. R., YENİLMEZ H. Y., KOÇAK M.  
International Conference on Porphyrins and Phthalocyanines, 22 - 27 June 2014
- XVII. **Synthesis and Characterization of Novel Hexadeca-substituted Phthalocyanines**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
XIV European Symposium on Organic Reactivity, 1 - 09 September 2013
- XVIII. **Novel Gallium and Indium Phthalocyanines for PDT**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
Organic Synthesis Symposium, 15 - 20 July 2012
- XIX. **Octakis(diethylaminophenoxy)- Substituted Water Soluble Cobalt Phthalocyanine**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
Paint İstanbul, Turkey, 23 - 26 September 2010
- XX. **Adsorption of Cationic Cobalt Porphyrine onto Bentonite**  
SEVİM A. M., PEKBELGİN KARAOĞLU H. R., GÜL A., ÇELİK M. S.  
3rd EuCheMS Chemistry Congress Chemistry-the Creative Force, Nürnberg, Germany, 29 August - 02 September 2010
- XXI. **Synthesis of new phthalocyanines with diethylamino-phenoxy and hexylsulfanyl substituents on peripheral positions**  
PEKBELGİN KARAOĞLU H. R., GÜL A., KOÇAK M.  
3rd EuCheMS Chemistry Congress Nürnberg, 29 August - 02 September 2010
- XXII. **Preparation of Novel Tetraquaternized Soluble Phthalocyanines**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.  
IV. International Symposium on Macrocyclic Supramolecular Chemistry, 21 - 25 June 2009
- XXIII. **Farklı Sübstitüentler İçeren Yeni Oktasüstitüe Ftalosiyanimler**  
PEKBELGİN KARAOĞLU H. R., KOÇAK M.

XXII. Ulusal Kimya Kongresi, Turkey, 6 - 10 October 2008

XXIV. **Synthesis of Novel Phthalocyanines with Different Substituents, Torino, İtalya**

PEKBELGİN KARAOĞLU H. R., KOÇAK M.

2nd EuCheMS Chemistry Congress Chemistry: The Global Science, 29 August - 02 September 2008

XXV. **Novel Water Soluble Copper Phthalocyanine, ,**

PEKBELGİN KARAOĞLU H. R., KOÇAK M., GÜL A.

9. Figipas Meeting in Inorganic Chemistry, Viyana, 4 - 07 July 2007

XXVI. **Investigation of Donor Properties of Tetrapyrrolyl-Phthalocyanines**

PEKBELGİN KARAOĞLU H. R., GÜL A., KOÇAK M.

XXX. International Symposium on Macrocyclic Chemistry, Dresden, Germany, 17 - 21 July 2005

XXVII. **Tetra Pridil Ftalosiyanınların Donör Özelliklerinin İncelenmesi XVIII. Ulusal Kimya Kongresi**

PEKBELGİN KARAOĞLU H. R., GÜL A., KOÇAK M.

XVIII. Ulusal Kimya Kongresi, Turkey, 5 - 09 July 2004

## Supported Projects

Pekbelgin Karaoğlu H. R., TUBITAK Project, Fotodinamik Antimikrobiyal Aktivite, Biofilm İnhibisyonu Ve Dna Etkileşimi İçin Yeni Florenil Sübstitüe Ftalosiyanınlar, 2022 - 2024

Pekbelgin Karaoğlu H. R., Project Supported by Higher Education Institutions, 4-(triflorometoksi)-tiyofenol grubu içeren yeni bir oktasüstitüe çinko ftalosiyanın sentezi, 2016 - 2018

Pekbelgin Karaoğlu H. R., Project Supported by Higher Education Institutions, Oktasüstitüe Çinko(II) Ftalosiyanın Sentezi ve Fotofiziksel Özellikleri, 2014 - 2018

Pekbelgin Karaoğlu H. R., Project Supported by Higher Education Institutions, Yeni Hekzadeıka Sübstitüe Ftalosiyanınların Sentezi ve Karakterizasyonu, 2013 - 2018

Pekbelgin Karaoğlu H. R., Project Supported by Higher Education Institutions, PDT Kullanımı için Yeni Tip Galyum ve İndiyum Ftalosiyanınlar, 2012 - 2018

TUBITAK Project, 15N İzotop İşNretlenmiş Metalli ve Metalsız Ftalosiyanınların Sentezi ve 15N NMR larının İncelenmesi, 2014 - 2015

TUBITAK Project, Kanserin Fotodinamik Tedavisinde Fotoalgılayıcılar Olarak Yeni Amfilik Ftalosiyanınlar, 2010 - 2012

## Metrics

Publication: 48

Citation (WoS): 167

Citation (Scopus): 328

H-Index (WoS): 6

H-Index (Scopus): 12