

## Prof. Mehmet KAYA

### Personal Information

**Email:** mehmetkaya@atauni.edu.tr

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### International Researcher IDs

ORCID: 0000-0001-9680-3622

Publons / Web Of Science ResearcherID: A-2839-2016

Yoksis Researcher ID: 22310



### Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2008 - 2014

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2006 - 2008

Undergraduate, Ataturk University, Fen Fakültesi, Kimya, Turkey 2001 - 2005

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, Eğitimcilerin Eğitimi Semineri, Recep Tayyip Erdoğan Üniversitesi, 2019

### Dissertations

Doctorate, Rodamin b ve merosiyanin 540 dye bileşiklerinin kil (Ünye bentonit) içeren süspansiyonlarda moleküler adsorpsiyonu, agregasyonu ve fotofiziği, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2014

Postgraduate, Konjuge β-enon sistemleri içeren iki boyarmaddenin sentezi ve fotofiziksel özellikleri, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2008

### Research Areas

Chemistry

### Academic Titles / Tasks

Professor, Ataturk University, Fen Fakültesi, Kimya, 2024 - Continues

Associate Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Kimya Bölümü, 2018 - 2024

Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Kimya Bölümü, 2016 - 2018

Research Assistant PhD, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Kimya Bölümü, 2014 - 2016

Research Assistant, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Kimya Bölümü, 2008 - 2014

## Academic and Administrative Experience

Head of Department, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Kimya Bölümü, 2021 - 2024

## Courses

Fizikokimya I, Undergraduate, 2023 - 2024

Kimyasal Kinetik, Undergraduate, 2022 - 2023

## Jury Memberships

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, January, 2017

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

- I. **Molecular aggregates of merocyanine 540 with different surfactant systems**  
Kara H., Kaya M., Onganer Y.  
JOURNAL OF MOLECULAR LIQUIDS, vol.412, no.125831, pp.1-6, 2024 (SCI-Expanded)
- II. **Characterization of TEMPO-Oxidized Cellulose Nanofiber From Biowaste and Its Influence on Molecular Behavior of Fluorescent Rhodamine B Dye in Aqueous Suspensions**  
Kaya M.  
JOURNAL OF FLUORESCENCE, vol.0, no.0, 2024 (SCI-Expanded)
- III. **Cellulose Ester-Based Aerogel: Lightweight and Highly Water-Absorbent**  
Aksu K., KAYA M.  
ACS OMEGA, no.3, pp.3701-3708, 2024 (SCI-Expanded)
- IV. **The determination of molecular dynamic properties of Novel 5-oxo-1,2,4-triazole phthalocyanines and investigation of their urease inhibition properties**  
KAYA M., MENTEŞE E., Sokmen B. B., AKÇAY H. T.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1222, 2020 (SCI-Expanded)
- V. **Recycling of an Agricultural Bio-waste as a Novel Cellulose Aerogel: A Green Chemistry Study**  
Kaya M., Tabak A.  
JOURNAL OF POLYMERS AND THE ENVIRONMENT, vol.28, no.1, pp.323-330, 2020 (SCI-Expanded)
- VI. **Synthesis and solvent-dependent photophysics of a novel fluorescent triazole-coumarin-based dye**  
Kaya M., Mentese E.  
JOURNAL OF HETEROCYCLIC CHEMISTRY, vol.57, no.4, pp.1714-1719, 2020 (SCI-Expanded)
- VII. **Preparation and characterization of a novel activated carbon component via chemical activation of tea woody stem**  
Tabak A., Sevimli K., KAYA M., Caglar B.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.138, no.6, pp.3885-3895, 2019 (SCI-Expanded)
- VIII. **A Novel Highly Porous Cellulosic Aerogel Regenerated by Solvent Exchange Mechanism**  
KAYA M., DEMİR A., AKÇAY H. T.  
JOURNAL OF POLYMERS AND THE ENVIRONMENT, vol.27, no.8, pp.1801-1806, 2019 (SCI-Expanded)
- IX. **INVESTIGATION OF A HYBRID MATERIAL AND PHOTOPHYSICAL PROPERTIES OF RHODAMINE B IN AQUEOUS SUSPENSIONS OF CELLULOSIC PARTICLES**  
KAYA M.

REVUE ROUMAINE DE CHIMIE, vol.64, no.2, pp.163-171, 2019 (SCI-Expanded)

- X. **Evaluation of a novel woody waste obtained from tea tree sawdust as an adsorbent for dye removal**  
KAYA M.  
WOOD SCIENCE AND TECHNOLOGY, vol.52, no.1, pp.245-260, 2018 (SCI-Expanded)
- XI. **Guaiacol Substituted AzaPCs: A Novel Synthesis Method and Investigation of Photophysical Properties**  
KAYA KANTAR G., KAYA M., ŞAHİN O., ŞAŞMAZ S.  
JOURNAL OF STRUCTURAL CHEMISTRY, vol.59, no.3, pp.571-583, 2018 (SCI-Expanded)
- XII. **Super absorbent, light, and highly flame retardant cellulose-based aerogel crosslinked with citric acid**  
KAYA M.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.134, no.38, 2017 (SCI-Expanded)
- XIII. **Photophysical and adsorption properties of pyronin B in natural bentonite clay dispersion**  
ROSTAMI M. R., KAYA M., GUR B., ONGANER Y., Meral K.  
APPLIED SURFACE SCIENCE, pp.897-904, 2015 (SCI-Expanded)
- XIV. **Molecular aggregates of Merocyanine 540 in aqueous suspensions containing natural and CTAB-modified bentonite**  
KAYA M., Meral K., ONGANER Y.  
JOURNAL OF MOLECULAR STRUCTURE, pp.101-105, 2015 (SCI-Expanded)
- XV. **Preparation and characterization of "green" hybrid clay-dye nanopigments**  
KAYA M., ONGANER Y., TABAK A.  
JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, pp.95-100, 2015 (SCI-Expanded)
- XVI. **Pyronin Y (basic xanthene dye)-bentonite composite: A spectroscopic study**  
TABAK A., KAYA M., Yilmaz N., MERAL K., ONGANER Y., ÇAĞLAR B., SUNGUR O.  
JOURNAL OF MOLECULAR STRUCTURE, pp.271-279, 2014 (SCI-Expanded)
- XVII. **The molecular aggregation of pyronin Y in natural bentonite clay suspension**  
Meral K., Yilmaz N., Kaya M., Tabak A., Onganer Y.  
JOURNAL OF LUMINESCENCE, vol.131, no.10, pp.2121-2127, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Characterization of Various Cation Exchanged and Pillared Artvin Bentonites and Their Use as a Catalyst in a Selected Organic Reaction**  
Tabak A., Çağlar B., KAYA M.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.1, pp.33-45, 2020 (Peer-Reviewed Journal)
- II. **Çay Çalısı Budama Atıkları Kullanılarak Eosin Y Boyarmaddesinin Sulu Çözeltiden Biyosorpsiyonu için İzoterm Verilerinin İncelenmesi**  
KAYA M.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.1, pp.274-282, 2020 (Peer-Reviewed Journal)
- III. **SYNTHESIS AND CHARACTERIZATION OF CELLULOSE BASED BIO POLYMER AEROGEL ISOLATED FROM WASTE OF BLUEBERRY TREE VACCINIUM MYRTILLUS**  
KAYA M.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.3, no.3, pp.299-310, 2016 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Evaluation of a novel bio-waste obtained from sawdust as an adsorbent for removal of Pyronin B**  
KAYA M.

7th International Conference on Engineering and Natural Sciences, Sarajevo, Bosnia And Herzegovina, 23 - 27 June 2021, pp.47-53

- II. **Synthesis and Characterization of a Natural Cellulose Product from Biowaste**  
KAYA M.  
7TH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, Sarajevo, Bosnia And Herzegovina, 23 - 27 June 2021, pp.30-34
- III. **Characterization of Pure Tea Woody (Stem) Waste and Rhodamine B (Rh-B) Dye Compound Hybrid Composite: A Spectroscopic Study**  
KAYA M., TABAK A., ÇAĞLAR B.  
4th International Pure and Applied Sciences: Renewable Energy, İstanbul, Turkey, 23 - 25 November 2017
- IV. **Structural Characteristics of Activated Carbon Prepared by Chemical Activation of Tea Woody Stem**  
TABAK A., SEVİMLİ K., KAYA M., ÇAĞLAR B.  
4th International Pure and Applied Sciences: Renewable Energy, İstanbul, Turkey, 23 - 25 November 2017
- V. **Thermal Properties of Natural and Chemical Activated Agricultural Bio-Wastes from Tea Woody Stem**  
TABAK A., KAYA M., SEVİMLİ K., ÇAĞLAR B.  
4th International Pure and Applied Sciences: Renewable Energy, İstanbul, Turkey, 23 - 25 November 2017
- VI. **Structural Characterization of Cation Exchanged and Al/Fe Pillared Bentonites by XRD, FTIR and SEM Analyses**  
TABAK A., ÇAĞLAR B., KAYA M.  
4th International Pure and Applied Sciences: Renewable Energy, İstanbul, Turkey, 23 - 25 November 2017
- VII. **A SPECTROSCOPIC STUDY PREPARATION AND CHARACTERIZATION OF BIODEGRADABLE NON TOXIC CELLULOSE BASED AEROGEL CROSSLINKED WITH CITRIC ACID**  
KAYA M., SUNGUR Ö., TABAK A.  
International Conference on Environmental Science and Technology 2016 (ICOEST 2016), Belgrade, Serbia, 28 September - 02 October 2016
- VIII. **Atık Karayemiş Prunus Laurocerasus Çalışından İzole Edilen Selüloz Kaynaklı Aerojel Biyo polimer Malzemenin Sentezi ve Karakterizasyonu**  
KAYA M., SUNGUR Ö., TABAK A.  
6. Ulusal Polimer Bilim Kongresi, Ankara, Turkey, 4 - 07 September 2016
- IX. **A Spectroscopic Approach Characterization of Acid Activated Tea Stem AATS and Merocyanine 540 MC 540 Dye Compound Hybrid Composite**  
KAYA M., SUNGUR Ö., TABAK A., ONGANER Y.  
AMWC 2013 (Advanced Materials World Congress 2013), 16 - 19 September 2013
- X. **A Spectroscopic Comparison of Unye Bentonite UB Modified Some Metals Which Have Catalytic Properties**  
SUNGUR Ö., KAYA M., TABAK A.  
AMWC 2013 (Advanced Materials World Congress 2013), İzmir, Turkey, 16 - 19 September 2013
- XI. **An Investigation of the Adsorption of Rhodamine B Dye Stuff Onto Various Modified Bentonites**  
ÇAĞLAR B., ÇETİN E., TABAK A., ÇUBUK O., KAYA M., SUNGUR Ö.  
PPM (Porous Powder Materials Symposium) 2013, 3 - 06 September 2013
- XII. **Poly 2 hydroxyethyl Methacrylate Bentonite Unye Composites**  
SUNGUR Ö., ÖZÇALIŞKAN E., KAYA M., TABAK A., AKGÖL S., GÖKTEKİN Ö.  
PPM (Porous Powder Materials Symposium) 2013, 3 - 06 September 2013
- XIII. **A Comparative Adsorption Study Rice Husk against Acid Activated Rice Husk by Using Rhodamine B**  
KAYA M., SUNGUR Ö., TABAK A., GÖKTEKİN Ö.  
PPM (Porous Powder Materials Symposium) 2013, 3 - 06 September 2013
- XIV. **Spectroscopic characterization of a clay based dye nano composite material**  
KAYA M., SUNGUR Ö., TABAK A., ONGANER Y.  
IUPAC 2013 (World Chemistry Congress) 2013, 11 - 16 August 2013
- XV. **Characterization of a Novel Acid Activated StemTea Rhodamine B composite material AAST Rh B**

SUNGUR Ö., KAYA M., TABAK A.

IUPAC 2013 (World Chemistry Congress) 2013, 11 - 16 August 2013

- XVI. **Synthesis and Characterization of Rhodamine B Rh B Unye Bentonite U BNT Nanocomposite**  
KAYA M., ONGANER Y., SUNGUR Ö., TABAK A.  
NanoTR9, Turkey, 24 - 28 June 2013
- XVII. **Ünye bentonit Poliakrilamid Kompozitlerinin Karakterizasyonu**  
SUNGUR Ö., TAVLI E., KAYA M., TABAK A.  
III. FİZİKSEL KİMYA GÜNLERİ, Turkey, 12 - 15 July 2012
- XVIII. **Sulu ortamda Ünye Bentonitin Pyronin B adsorpsiyonu**  
ULOCAK G., SİNEM U., KAYA M., SUNGUR Ö., TABAK A., ŞİNOFOROĞLU M.  
III. FİZİKSEL KİMYA GÜNLERİ, Turkey, 12 - 15 July 2012
- XIX. **Molecular Adsorption Dynamics of Rhodamine B in Clay Bentonite Suspension**  
KAYA M., SUNGUR Ö., MERAL K., ONGANER Y., TABAK A.  
Euroclay 2011, 26 June - 01 July 2011
- XX. **Photophysical Properties of Pyronin Y in Natural Bentonite Clay Suspension A Spectroscopic Study**  
KAYA M., MERAL K., ONGANER Y., TABAK A., YILMAZ BARAN N.  
Euroclay 2011, 26 June - 01 July 2011
- XXI. **The Structural Analysis of Pyronin Y PyY Bentonite Composite Using Xrd FTIR and Thermal Analysis Techniques**  
YILMAZ BARAN N., TABAK A., MERAL K., KAYA M., ONGANER Y.  
Euroclay 2011, 26 June - 01 July 2011
- XXII. **Controlled Drug Release Study Unye Bentonite Doxorubicin and Mitomycin C Composites**  
SUNGUR Ö., TABAK A., AKGÖL S., KAYA M., PELTEK H.  
Euroclay 2011, 26 June - 01 July 2011
- XXIII. **Konjuge Enon Sistemleri İçeren Bir Boyarmaddenin Sentezi ve Fotofiziksel Özelliklerinin İncelenmesi**  
KAYA M., MERAL K., SEÇEN H., ONGANER Y.  
XI. Ulusal Spektroskopik Kongresi, Turkey, 23 - 26 June 2009

## Supported Projects

Kaya M., Keleş T., Sekban R., Demir A., Kalcioğlu Z., Müezzinoğlu N., Akçay H. T., Başaran B., Faiz Ö., Project Supported by Higher Education Institutions, Çay Çiçeğinin Kimyasal Özellikleri Sağlık ve Ekonomik Açından Potansiyelinin Değerlendirilmesi, 2021 - 2024

Kaya M., Akçay H. T., Keleş T., Faiz Ö., Project Supported by Higher Education Institutions, Rize İlinde Yetiştirilen Çay Ürünü Ekstraktlarından Kozmetik Ürünlerin Hazırlanması, 2020 - 2023

Kaya M., Kantar C., Kaya Kantar G., Project Supported by Higher Education Institutions, Çay Atıklarının (Fabrika ve Çay Çalısı) Ekonomiye Kazandırılması Amacıyla Katma Değeri Yüksek Selüloz ve Metil Selüloza Dönüştürülmesi, 2020 - 2023

Kaya M., Mentşe E., Akçay H. T., Project Supported by Higher Education Institutions, 4(3-methyl-5-okso-4-(4phenoxyphenyl)-4,5-dihydro-1H-1,2,4 triazol-1-il ftalosiyanın komplekslerinin sentezi ve Fotofiziksel Özelliklerinin ve enzim inhibisyon aktivitelerinin araştırılması, 2019 - 2020

Kaya M., Çağlar B., Tabak A., Project Supported by Higher Education Institutions, METAL ve POLİMERİK METAL İYONLARI İLE AKTİVE EDİLMİŞ ARTVİN BENTONİTİNİN YAPISAL ÖZELLİKLERİNİN İNCELENMESİ VE SEÇİLMİŞ BİR ORGANİK REAKSİYONDA KATALİZÖR OLARAK KULLANILMASI, 2016 - 2018

Kaya M., Tabak A., Project Supported by Higher Education Institutions, ATIK ÇAY ÇALISINDAN İZOLE EDİLEN SELÜLOZ KAYNAKLI BİYOPOLİMER AEROJEL KOMPOZİT MALZEMELERİN KARAKTERİZASYONU, ALEV GECİKTİRİCİ ve ISI YALITIMI GİBİ ÖZELLİKLERİNİN İNCELENMESİ, 2016 - 2018

Kaya M., Karaoğlu K., Tokçalar S., Akçay H. T., Project Supported by Higher Education Institutions, Çeşitli Organik Polimerlerin Elektrosprin Yöntemi İle Nanolif ÜretimKoşullarının Optimizasyonu, 2017 - 2017

## Memberships / Tasks in Scientific Organizations

Recep Tayyip Erdoğan Üniversitesi Çay İhtisaslaşma Koordinatörlüğü, Member, 2018 - Continues, Turkey

## Scientific Refereeing

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Recep Tayyip Erdoğan University, Turkey, May 2023

Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, January 2023

JOURNAL OF POLYMERS AND THE ENVIRONMENT, SCI Journal, October 2020

International Journal Pure and Applied Sciences, SCI Journal, October 2020

MACROMOLECULAR MATERIALS AND ENGINEERING, SCI Journal, June 2020

CELLULOSE, SCI Journal, February 2020

MATERIALS RESEARCH EXPRESS, SCI Journal, January 2020

CHEMICAL PHYSICS LETTERS, SCI Journal, November 2019

MATERIALS AND DESIGN, SCI Journal, October 2019

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, September 2019

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Marshall, Turkey, September 2019

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, May 2019

CHEMICAL ENGINEERING JOURNAL, SCI Journal, April 2019

CHEMICAL ENGINEERING JOURNAL, SCI Journal, January 2019

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, December 2018

CHEMICAL ENGINEERING JOURNAL, SCI Journal, December 2018

CHEMICAL ENGINEERING JOURNAL, SCI Journal, October 2018

TUBITAK Project, 2204-B Middleschool Students Research Projects Competition , --, Turkey, May 2018

Project Supported by Higher Education Institutions, BAP Research Project, Recep Tayyip Erdoğan University, Turkey, April 2018

ACS SUSTAINABLE CHEMISTRY AND ENGINEERING, SCI Journal, March 2018

MATERIALS RESEARCH EXPRESS, SCI Journal, March 2018

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, March 2018

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, January 2018

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, December 2017

BIORESOURCES, SCI Journal, December 2016

Sinop Fen Bilimleri Dergisi, National Scientific Refreed Journal, November 2016

Journal of the Turkish Chemical Society, Section A: Chemistry, National Scientific Refreed Journal, August 2016

Journal of the Turkish Chemical Society, Section A: Chemistry, National Scientific Refreed Journal, July 2016

## Mobility Activity

Other, Workshop, Recep Tayyip Erdoğan University, Turkey, 2019 - 2019

## Metrics

Publication: 44

Citation (WoS): 271

Citation (Scopus): 252

H-Index (WoS): 11

H-Index (Scopus): 11

## **Congress and Symposium Activities**

- 7th International Conference on Engineering and Natural Sciences, Attendee, Sarajevo, Bosnia And Herzegovina, 2021  
7TH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, Attendee, Sarajevo, Bosnia And Herzegovina, 2021  
Çay Çalıştayı, Working Group, Rize, Turkey, 2019  
4th International Pure and Applied Sciences: Renewable Energy, Attendee, İstanbul, Turkey, 2017  
International Conference on Environmental Science and Technology 2016 (ICOEST 2016), Attendee, Belgrade, Serbia, 2016  
6. Ulusal Polimer Bilim Kongresi, Attendee, Ankara, Turkey, 2016  
28. ULUSAL KİMYA KONGRESİ-MERSİN-2016, Attendee, Mersin, Turkey, 2016  
AMWC 2013 (Advanced Materials World Congress 2013), Attendee, İzmir, Turkey, 2013  
PPM (Porous Powder Materials Symposium) 2013, Attendee, İzmir, Turkey, 2013  
IUPAC 2013 (World Chemistry Congress) , Attendee, İstanbul, Turkey, 2013  
NanoTR9, Attendee, Erzurum, Turkey, 2013  
III. FİZİKSEL KİMYA GÜNLERİ, Attendee, Balıkesir, Turkey, 2012  
Euroclay 2011, Attendee, Antalya, Turkey, 2011  
XI. Ulusal Spektroskopik Kongresi, Attendee, Ankara, Turkey, 2009

## **Awards**

Kaya M., Atatürk Üniversitesi 2015 yılı Bilimsel Teşvik ve Ödülleri - Fen Bilimleri En İyi Doktora Tezi Başarı Ödülü, Atatürk Üniversitesi, January 2015

## **Representation and Promotion Activities**

Institutional Representation, Recep Tayyip Erdoğan Üniversitesi, Turkey, Rize, 2023 - 2023