

## Prof. AYŞEN YILMAZ

### Personal Information

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### Education Information

Doctorate, Middle East Technical University, Institute of Marine Sciences, Kimyasal Oşinografi Anabilim Dalı, Turkey 1982 - 1986

Postgraduate, Middle East Technical University, Institute of Marine Sciences, Kimyasal Oşinografi Anabilim Dalı, Turkey 1979 - 1982

Undergraduate, Hacettepe University, Kimya Fakültesi, Kimyagerlik Pr., Turkey 1973 - 1979

### Dissertations

Doctorate, The Origin and the Nature of Humic Substances in the Marine Environment, Middle East Technical University, Institute of Marine Sciences, Kimyasal Oşinografi Anabilim Dalı, 1986

Postgraduate, Fluorescence Measurements in the Marine Environment, Middle East Technical University, Institute of Marine Sciences, Kimyasal Oşinografi Anabilim Dalı, 1982

### Academic Titles / Tasks

Professor, Middle East Technical University, Institute of Marine Sciences, Kimyasal Oşinografi Anabilim Dalı, 1996 - Continues

### Academic and Administrative Experience

Middle East Technical University, Graduate School of Natural and Applied Sciences, Yer Sistem Bilimleri (Dr), 2013 - Continues

Middle East Technical University, Kaynak Teknolojisi Ve Takribatsız Muayene Uygulama Ve Araştırma Merkezi, 2003 - Continues

Middle East Technical University, Vocational School, 2003 - Continues

Middle East Technical University, Sürekli Eğitim Merkezi, 2003 - 2016

Middle East Technical University, Institute of Marine Sciences, 1989 - 1990

### Advising Theses

YILMAZ A., Synthesis and investigation of optical properties of Ce<sup>3+</sup>, Dy<sup>3+</sup>, Eu<sup>3+</sup> single doped, Ce<sup>3+</sup>/ Dy<sup>3+</sup> codoped, Ce<sup>3+</sup>/Dy<sup>3+</sup>/ Eu<sup>3+</sup> triple doped and Yb<sup>3+</sup> single doped, Ce<sup>3+</sup>/Tb<sup>3+</sup>/ Yb<sup>3+</sup> triple doped GDBO<sub>3</sub>, Postgraduate, O.Taneroğlu(Student), 2020

Yücel M., Yilmaz A., Investigation of redox-dependent benthic nutrient and metal feedbacks under anoxia using early diagenetic modeling, Postgraduate, K.BİÇE(Student), 2018

YILMAZ A., SOYTAŞ U., The impact of information provision on the social acceptance of shale gas development, Postgraduate, G.DİLGE(Student), 2018

YÜCEL İ., YILMAZ A., Climate change and futureproofing infrastructure: Etimesgut, Ankara case study, Doctorate, S.ORUÇ(Student), 2018

YILMAZ A., Modelling of carbon sink capacity of the Black Sea, Postgraduate, Y.CENGİZ(Student), 2016

YILMAZ A., ESENTÜRK O., Microwave assisted solid state synthesis of rare earth ions doped LaBO<sub>3</sub>, YBO<sub>3</sub> and GdBO<sub>3</sub>, their characterizations and investigations of luminescence properties, Postgraduate, M.Severoğlu(Student), 2016

ÜNER D., YILMAZ A., Hydrothermal synthesis of rare earth ions doped LaBO<sub>3</sub> and GdBO<sub>3</sub> and their photoluminescence properties, Postgraduate, S.Vahed(Student), 2016

YILMAZ A., Inclusion of celecoxib in the SBA-15 mesoporous silica: drug loading and release property, Postgraduate, Z.Seda(Student), 2016

HACALOĞLU J., YILMAZ A., Effects of boron compound on characteristics of poly(methyl methacrylate) and its nanocomposites, Postgraduate, M.Göktaş(Student), 2016

YÜCEL İ., YILMAZ A., Uncertainty assessment in projection of the extreme river flows, the case of Ömerli catchment, İstanbul, Postgraduate, B.Eren(Student), 2015

YILMAZ A., Inclusion of celecoxib in the MCM – 41 mesoporous silica: drug loading and release property, Postgraduate, Ş.Günaydin(Student), 2014

ERCAN H., YILMAZ A., Climate change impacts on primary production and economically important fish stocks in the Black Sea, Postgraduate, S.KÜÇÜKAŞAR(Student), 2013

ÜNER D., YILMAZ A., Hydrogen generation of conventional fuels over mesoporous mixed oxide catalysts under time interrupted reaction conditions, Doctorate, M.Can(Student), 2012

YILMAZ A., ESENTÜRK O., Microwave assisted sythesis of rare earth ions doped lanthanum orthoborate, their characterizations and investigations of luminescence properties, Postgraduate, C.Badan(Student), 2012

YILMAZ A., Synthesis of Ti,Cr,Mn,Fe,Co,Ni,Cu,Zn sulfide by solid-gas reactions,investigation of structural and conducting properties, Postgraduate, M.Fatih(Student), 2005

YILMAZ A., Nitrogen cycling in the Black Sea, Postgraduate, Y.ÇOBAN(Student), 2003

YILMAZ A., Bio-optical characteristics of the mediterranean and the Black Sea, Postgraduate, C.VERDAGUER(Student), 1996

YILMAZ A., Interrelationships among primary production, chlorophyll and anvironmental conditions in the northern levantine basin, Doctorate, D.EDİGER(Student), 1995

YILMAZ A., Interrelationships among primary production, chlorophyll and environmental conditions in the Northern Levantine Basin, Doctorate, D.Ediger(Student), 1995

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

- I. **Structural, photo, optical and thermal luminescent properties of beta barium metaborate**  
Ifrazoglu S., Yilmaz A., Bulur E.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.829, 2020 (SCI-Expanded)
- II. **Tunable optical properties and DFT calculations of RE<sup>3+</sup> codoped LaBO<sub>3</sub> phosphors**  
Hızal Abacı Ö. C., Mete E., Esentürk O., Yılmaz A.  
OPTICAL MATERIALS, vol.98, 2019 (SCI-Expanded)
- III. **Phytoplankton biomass, primary production and chemoautotrophic production of the Western Black Sea in April 2003**  
Ediger D., Murray J. W., YILMAZ A.  
JOURNAL OF MARINE SYSTEMS, vol.198, 2019 (SCI-Expanded)
- IV. **Investigation of neutron sensitivity of un-doped and Dy-doped CaB<sub>4</sub>O<sub>7</sub> for thermoluminescence applications**  
Ifrazoglu S., YILMAZ A., KAFADAR V. E., YAZICI A. N.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.133, no.3, pp.1327-1333, 2018 (SCI-Expanded)
- V. **Assessing different sources of uncertainty in hydrological projections of high and low flows: case**

**study for Omerli Basin, Istanbul, Turkey**

Engin B. E., Yücel İ., Yılmaz A.

ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.189, 2017 (SCI-Expanded)

- VI. **A van der Waals density functional investigation of carboranethiol self-assembled monolayers on Au(111)**  
Mete E., YILMAZ A., DANIŞMAN M. F.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.18, no.18, pp.12920-12927, 2016 (SCI-Expanded)
- VII. **Density functional theory investigation of carboranethiolcarboranethiolcarboranethiol self-assembled monolayers on Au(111)**  
DANIŞMAN M. F., METE E., Guney G., YILMAZ A.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.251, 2016 (SCI-Expanded)
- VIII. **Synthesis and thermoluminescence properties of rare earth oxides (Y, Ce-Lu) doped lithium triborate**  
Depci T., ÖZBAYOĞLU G., YILMAZ A.  
JOURNAL OF RARE EARTHS, vol.29, no.6, pp.618-622, 2011 (SCI-Expanded)
- IX. **Effect of boron containing materials on flammability and thermal degradation of polyamide-6 composites containing melamine cyanurate**  
Dogan M., YILMAZ A., Bayramli E.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.22, no.5, pp.560-566, 2011 (SCI-Expanded)
- X. **Implementation and performance of parallellised turbo decoders**  
Erdin E., Kilcioglu C., YILMAZ A.  
IET COMMUNICATIONS, vol.5, no.1, pp.39-50, 2011 (SCI-Expanded)
- XI. **Sulfated Zirconia Modified SBA-15 Catalysts for Cellobiose Hydrolysis**  
Degirmenci V., ÜNER D., Cinlar B., Shanks B. H., YILMAZ A., van Santen R. A., Hensen E. J. M.  
CATALYSIS LETTERS, vol.141, no.1, pp.33-42, 2011 (SCI-Expanded)
- XII. **Synergistic effect of boron containing substances on flame retardancy and thermal stability of intumescent polypropylene composites**  
Dogan M., YILMAZ A., BAYRAMLI E.  
POLYMER DEGRADATION AND STABILITY, vol.95, no.12, pp.2584-2588, 2010 (SCI-Expanded)
- XIII. **Thermoluminescent properties of Sr2P2O7 doped with copper and some rare earth elements**  
YAZICI A. N., Seyyidoglu S., Toktamis H., YILMAZ A.  
JOURNAL OF LUMINESCENCE, vol.130, no.10, pp.1744-1749, 2010 (SCI-Expanded)
- XIV. **Comparison of Different Synthesis Methods to Produce Lithium Triborate and Their Effects on Its Thermoluminescent Property**  
Depci T., ÖZBAYOĞLU G., YILMAZ A.  
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, no.10, pp.2584-2594, 2010 (SCI-Expanded)
- XV. **Selective methane bromination over sulfated zirconia in SBA-15 catalysts**  
Degirmenci V., YILMAZ A., ÜNER D.  
CATALYSIS TODAY, vol.142, pp.30-33, 2009 (SCI-Expanded)
- XVI. **Collision Free Row Column S-random Interleaver**  
GAZİ O., YILMAZ A.  
IEEE COMMUNICATIONS LETTERS, vol.13, no.4, pp.257-259, 2009 (SCI-Expanded)
- XVII. **Synthesis and NMR Characterization of Titanium and Zirconium Oxides Incorporated in SBA-15**  
Degirmenci V., Erdem O. F., Ergun O., YILMAZ A., Michel D., ÜNER D.  
TOPICS IN CATALYSIS, vol.49, pp.204-208, 2008 (SCI-Expanded)
- XVIII. **Oxidation States and the Acidity of Ordered Arrays of Co-Pb Mixed Oxide Nanoparticles Templated in SBA15**  
Akca B., Guner O., Can M., YILMAZ A., ÜNER D.  
TOPICS IN CATALYSIS, vol.49, pp.187-192, 2008 (SCI-Expanded)
- XIX. **The thermoluminescent properties of lithium triborate (LiB3O5) activated by aluminium**

Depci T., Ozbayoglu G., YILMAZ A., YAZICI A. N.

NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.266, no.5, pp.755-762, 2008 (SCI-Expanded)

- XX. **Comparison of linear and quadratic hexahedral edge elements in electromagnetic scattering problems**  
YILMAZ A., Kuzuoglu M.  
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.62, no.8, pp.582-587, 2008 (SCI-Expanded)
- XXI. **Preparation and characterization of ordered TiO<sub>2</sub> photocatalysts: films and mesoporous structures**  
Erguen O., Karslioglu O., YILMAZ A., ÜNER D.  
TURKISH JOURNAL OF CHEMISTRY, vol.31, no.5, pp.501-508, 2007 (SCI-Expanded)
- XXII. **The effect of different starting materials on the synthesis of lithium triborate**  
Depci T., Ozbayoglu G., YILMAZ A.  
PHYSICO-CHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.41, pp.101-105, 2007 (SCI-Expanded)
- XXIII. **Vertical profiles of particulate organic matter and its relationship with chlorophyll-a in the upper layer of the NE Mediterranean Sea**  
EDİGER D., Tugrul S., Yilmaz A.  
JOURNAL OF MARINE SYSTEMS, vol.55, pp.311-326, 2005 (SCI-Expanded)
- XXIV. **Solid State Synthesis and Characterization of Some Novel Sodium Rare Earth Phosphates**  
Seyyidoglu S., Ozenbas M., Kizilyalli M., YILMAZ A.  
ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES, vol.61, 2005 (SCI-Expanded)
- XXV. **The effect of cold and warm core eddies on the distribution and stoichiometry of dissolved nutrients in the northeastern Mediterranean**  
YILMAZ A., TUĞRUL S.  
Journal Of Marine Systems, vol.16, pp.253-268, 1998 (SCI-Expanded)
- XXVI. **PHYTOPLANKTON FLUORESCENCE AND DEEP CHLOROPHYLL MAXIMA IN THE NORTHEASTERN MEDITERRANEAN**  
YILMAZ A., EDİGER D., BAŞTÜRK Ö., TUĞRUL S.  
OCEANOLOGICA ACTA, vol.17, no.1, pp.69-77, 1994 (SCI-Expanded)
- XXVII. **CHANGES IN THE HYDROCHEMISTRY OF THE BLACK-SEA INFERRED FROM WATER DENSITY PROFILES**  
TUĞRUL S., BASTURK O., SAYDAM C., YILMAZ A.  
NATURE, vol.359, no.6391, pp.137-139, 1992 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigating the Effect of Climate Change on Stormwater Networks: Capital Ankara Case**  
Oruç s., YÜCEL İ., YILMAZ A.  
Turkish Journal of water science and management, 2020 (Peer-Reviewed Journal)
- II. **Şekil Değiştiren Uçaklar Havacılıkta Yeni Bir Devrim Yaratabilir mi**  
ÖZGEN S., GÜÇLÜ S., ŞAHİN M., YAMAN Y., BAYRAM G., ULUDAĞ Y., YILMAZ A.  
Savunma ve Havacılık, vol.22126, pp.125-128, 2008 (Non Peer-Reviewed Journal)

## Books & Book Chapters

- I. **On the production, elemental composition (C, N, P) and distribution of photosynthetic organic matter in the southern Black Sea**  
YILMAZ A., TUĞRUL S., POLAT Ç., EDİGER D., ÇOBAN YILDIZ Y., MORKOÇ E.  
in: Eutrophication in Planktonic Ecosystems Food Web Dynamics and Elemental Cycling, T. Tamminen and H.

## Refereed Congress / Symposium Publications in Proceedings

- I. **Synthesis and thermoluminescence characterization of copper and silver co-doped lithium tetraborate phosphors**  
ÇELİK M. G., Yazici N., YILMAZ A.  
256th National Meeting and Exposition of the American-Chemical-Society (ACS) - Nanoscience, Nanotechnology and Beyond, Massachusetts, United States Of America, 19 - 23 August 2018, vol.256
- II. **Carboranethiol self-assembled monolayers on gold surfaces**  
Sohrabnia N., Yavuz A., YILMAZ A., DANIŞMAN M. F.  
253rd National Meeting of the American-Chemical-Society (ACS) on Advanced Materials, Technologies, Systems, and Processes, San-Francisco, Costa Rica, 2 - 06 April 2017, vol.253
- III. **On the Accuracy and Efficiency of Surface Formulations in Fast Analysis of Plasmonic Structures via MLFMA**  
Karaosmanoglu B., YILMAZ A., ERGÜL Ö. S.  
Progress in Electromagnetic Research Symposium (PIERS), Shanghai, China, 8 - 11 August 2016, pp.2629-2633
- IV. **Development and Application of a Broadband Multilevel Fast Multipole Algorithm for Challenging Multiscale**  
Karaosmanoglu B., YILMAZ A., ERGÜL Ö. S.  
Progress in Electromagnetic Research Symposium (PIERS), Shanghai, China, 8 - 11 August 2016, pp.4713-4716
- V. **Yüksek antropojenik atmosferik CO<sub>2</sub> baskısı altında okyanuslar Karadeniz in CO<sub>2</sub> tutma kapasitesi**  
CENGİZ Y., YILMAZ A., YÜCEL İ., RUIZ PINO D.  
Türkiye Deniz Bilimleri Konferansı, Ankara, Turkey, 31 May - 03 June 2016
- VI. **Full-Wave Analysis of Three-Dimensional Optical Metamaterials Involving Deformed Nanowires**  
Karaosmanoglu B., YILMAZ A., ERGÜL Ö. S.  
9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), Oxford, United Kingdom, 7 - 12 September 2015, pp.136-138
- VII. **Turkish Solar Radiation Zones for Segmental Box Girder Bridge Design Under Temperature Gradient Loading**  
YILMAZ A., Albostan U., CANER A., KURÇ Ö.  
Istanbul Bridge Conference, Turkey, 11 - 13 August 2014, vol.9, pp.77-89
- VIII. **Joint Channel Estimation and Decoding with Low-Complexity Iterative Structures in Time-Varying Fading Channels**  
Yapici Y., YILMAZ A.  
20th IEEE Symposium on Personal, Indoor and Mobile Radio Communications, Tokyo, Japan, 13 - 16 September 2009, pp.1943-1947
- IX. **Low-Complexity Iterative Channel Estimation and Tracking for Time-Varying Multi-Antenna Systems**  
Yapici Y., YILMAZ A.  
20th IEEE Symposium on Personal, Indoor and Mobile Radio Communications, Tokyo, Japan, 13 - 16 September 2009, pp.1317-1321
- X. **On parallelized serially concatenated codes**  
GAZİ O., YILMAZ A.  
IEEE Wireless Communications and Networking Conference, Hong Kong, PEOPLES R CHINA, 11 - 15 March 2007, pp.714-715
- XI. **RF Coil Design for MRI Applications in Inhomogeneous Main Magnetic Fields**  
YILMAZ A., Eyueboglu B. M.  
World Congress on Medical Physics and Biomedical Engineering, Seoul, South Korea, 27 August - 01 September 2006, pp.1480-1484
- XII. **Cooperative Multiple-Access in Fading Relay Channels**

YILMAZ A.

IEEE International Conference on Communications (ICC 2006), İstanbul, Turkey, 11 - 15 June 2006, pp.4532-4537

## Supported Projects

AKINOĞLU B. G., YILMAZ A., Demirezen E., Özden T. (. D. D., TURAN R., Project Supported by Higher Education Institutions, Türkiye’de Büyük Ölçekli Güneş Enerjisi Santrallerinden Kaynaklı Olası “Isı Adası” Etkisinin İncelenmesi, 2017 - 2017

YÜCEL İ., YILMAZ A., Project Supported by Higher Education Institutions, Yer Sistem Bilimleri Modelleme Araştırma Laboratuvarı Altyapı Projesi, 2012 - 2013

## Metrics

Publication: 47

Citation (WoS): 584

Citation (Scopus): 617

H-Index (WoS): 12

H-Index (Scopus): 13