

## Assoc. Prof. Abdullah Aydođan

### Personal Information

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### International Researcher IDs

ScholarID: 70UX0XwAAAAJ

ORCID: 0000-0001-6377-5143

Publons / Web Of Science ResearcherID: J-6522-2014

ScopusID: 6603210931

Yoksis Researcher ID: 19938

### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 2003 - 2010

Postgraduate, Istanbul Technical University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 2000 - 2003

Undergraduate, Istanbul Technical University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 1996 - 2000

### Foreign Languages

English

### Dissertations

Doctorate, Synthesis of functional group containing calix[4]pyrroles, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kimya (Dr), 2010

Postgraduate, Tetrakarbonil PiroI Türü Bileşiklerin Sentezi, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2003

### Research Areas

Chemistry, Organic Chemistry, Chemistry of Heterocyclic Compounds, Organic Reaction Mechanisms, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Istanbul Technical University, Fen-Edebiyat, Kimya, 2017 - Continues

Lecturer PhD, Istanbul Technical University, Fen-Edebiyat, Kimya, 2013 - 2017

Research Assistant, Istanbul Technical University, Fen-Edebiyat, Kimya, 2002 - 2013

### Courses

Seminer, Postgraduate, 2019 - 2020

Organic Chemistry, Undergraduate, 2019 - 2020

## Advising Theses

Aydođan A., Calix[4]pyrrole based supramolecular polymers via ortagonal interactions, Postgraduate, A.Budak(Student), Continues

Aydođan A., Kaliks[4]pirol Bazlı Sensörler ve Supramoleküler Polimerler, Doctorate, S.Yuvayapan(Student), 2020

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

- I. **Tailoring fluorescent ZIF-8 nanostructures through calix[4]pyrrole modification: tunable size and enhanced organic micropollutant removal capacity**  
Ük N., Ünlü F. Y., İbiş Ö., Nar I., Aydođan A., Ünlü C.  
Chemical Communications, vol.60, no.7, pp.866-869, 2023 (SCI-Expanded)
- II. **Cross-Linked Supramolecular Polymer Based on Calix[4]pyrrole-Decorated Pillar[5]arene and Its Application in Micropollutant Removal**  
Ünlü F. Y., Aydođan A.  
ACS Applied Polymer Materials, vol.5, no.9, pp.7193-7200, 2023 (SCI-Expanded)
- III. **A poly-pseudorotaxane constructed by threading pillar[5]arene onto an ion-pair recognition-based calix[4]pyrrole supramolecular polymer**  
Bektaş N., Aydođan A.  
Organic and Biomolecular Chemistry, vol.21, no.9, pp.1862-1867, 2023 (SCI-Expanded)
- IV. **Lipid-derived cetyltrimethylammonium salts as renewable phase change materials for thermal energy storage**  
Rende Kılıç E., Aydođan A., Aydın A. A.  
Solar Energy Materials and Solar Cells, vol.250, 2023 (SCI-Expanded)
- V. **An AB<sub>2</sub>-Type Hyperbranched Supramolecular Polymer Based on Calix[4]Pyrrole Anion Recognition: Construction, Stimuli-Responsiveness, and Morphology Tuning**  
Yelda Ünlü F., Aydođan A.  
Macromolecular Rapid Communications, vol.43, no.21, 2022 (SCI-Expanded)
- VI. **Multiresponsive, Self-Healing, and Hierarchical Materials Constructed from Anion Recognition-Based Supramolecular Polymer Networks**  
Unlu F. Y., Aydođan A.  
ACS APPLIED POLYMER MATERIALS, vol.4, pp.4774-4783, 2022 (SCI-Expanded)
- VII. **Development of Highly Luminescent Water-Insoluble Carbon Dots by Using Calix[4]pyrrole as the Carbon Precursor and Their Potential Application in Organic Solar Cells**  
Coşkun Y., Ünlü F. Y., Yılmaz T., Türker Y., Aydogan A., Kuş M., Ünlü C.  
ACS Omega, vol.7, pp.18840-18851, 2022 (SCI-Expanded)
- VIII. **Highly sensitive and cost-effective fluorescent turn-on sensors based on octamethylcalix[4]pyrrole receptor for the detection of fluoride anion**  
Amharar S., Aydođan A.  
DYES AND PIGMENTS, vol.197, 2022 (SCI-Expanded)
- IX. **A calix[4]pyrrole-based linear supramolecular polymer constructed by orthogonal self-assembly**  
Budak A., Aydođan A.  
CHEMICAL COMMUNICATIONS, vol.57, no.34, pp.4186-4189, 2021 (SCI-Expanded)
- X. **Ion Pair Recognition Based Supramolecular Polymer Showing Rapid and Reversible Sol-Gel Transition through van der Waals Interactions**  
Amharar S., Atsay A., Aydođan A.

ACS APPLIED POLYMER MATERIALS, vol.2, no.12, pp.5371-5376, 2020 (SCI-Expanded)

- XI. **Supramolecular calix[4]pyrrole polymers from a complementary pair of homoditopic host-guest molecules**  
Yuvayapan S., Aydoğan A.  
CHEMICAL COMMUNICATIONS, vol.55, no.60, pp.8800-8803, 2019 (SCI-Expanded)
- XII. **Counter Cation Dependent and Stimuli Responsive Supramolecular Polymers Constructed by Calix[4]pyrrole Based Host-Guest Interactions**  
Yuvayapan S., Aydoğan A.  
EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, no.4, pp.633-639, 2019 (SCI-Expanded)
- XIII. **Calix[4]pyrrole-decorated carbon nanotubes on paper for sensing acetone vapor**  
Baysak E., Yuvayapan S., Aydoğan A., Hızal G.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.258, pp.484-491, 2018 (SCI-Expanded)
- XIV. **A thermoresponsive supramolecular polymer gel from a heteroditopic calix[4]pyrrole**  
AMHARAR S., Yuvayapan S., Aydoğan A.  
Chemical Communications, vol.54, no.7, pp.829-832, 2018 (SCI-Expanded)
- XV. **Calix[4]pyrroles with bulky substituents and their anion binding studies**  
Akar A., Aydoğan A.  
TURKISH JOURNAL OF CHEMISTRY, vol.41, no.4, pp.493-507, 2017 (SCI-Expanded)
- XVI. **Synthesis and characterisation of a calix[4] pyrrole functional polystyrene via 'click chemistry' and its use in the extraction of halide anion salts**  
Aydoğan A.  
SUPRAMOLECULAR CHEMISTRY, vol.28, pp.117-124, 2016 (SCI-Expanded)
- XVII. **Reversible Assembly and Disassembly of Receptor-Decorated Gold Nanoparticles Controlled by Ion Recognition**  
Aydoğan A., LEE G., LEE C., SESSLER J. L.  
CHEMISTRY-A EUROPEAN JOURNAL, vol.21, no.6, pp.2368-2376, 2015 (SCI-Expanded)
- XVIII. **An imidazolium-functionalized self-assembling calix[4]pyrrole**  
Aydoğan A., SESSLER J. L.  
CHEMICAL COMMUNICATIONS, vol.50, no.88, pp.13600-13603, 2014 (SCI-Expanded)
- XIX. **Tetrakis(bicyclo[2.2.2]oct-2-ene)-Fused Calix[4]pyrrole**  
Aydoğan A., AKAR A.  
HELVETICA CHIMICA ACTA, vol.97, no.10, pp.1427-1432, 2014 (SCI-Expanded)
- XX. **EDOT-Functionalized Calix[4]pyrrole for the Electrochemical Sensing of Fluoride in Water**  
Aydoğan A., Koca A., ŞENER M. K., SESSLER J. L.  
ORGANIC LETTERS, vol.16, no.14, pp.3764-3767, 2014 (SCI-Expanded)
- XXI. **Decoration of Gold Nanoparticles by a Double-Armed Calix[4]pyrrole: A Receptor-Decorated Nanoensemble for Anion Sensing and Extraction**  
Sokkalingam P., HONG S., Aydogan A., SESSLER J. L., LEE C.  
CHEMISTRY-A EUROPEAN JOURNAL, vol.19, no.19, pp.5860-5867, 2013 (SCI-Expanded)
- XXII. **Tri- and Pentacalix[4]pyrroles: Synthesis, Characterization and Their Use in the Extraction of Halide Salts**  
Aydoğan A., AKAR A.  
CHEMISTRY-A EUROPEAN JOURNAL, vol.18, no.7, pp.1999-2005, 2012 (SCI-Expanded)
- XXIII. **Siloxane-functionalized calix[4]pyrrole: synthesis, characterization and modification of silica-based solid supports**  
Aydoğan A., AKAR A.  
TETRAHEDRON LETTERS, vol.52, no.21, pp.2790-2793, 2011 (SCI-Expanded)
- XXIV. **5,10,10,15,20,20-Hexamethylcalix[4]pyrrole 5,15-diethyl diester**  
Aydoğan A., AKAR A.  
ACTA CRYSTALLOGRAPHICA SECTION E-STRUCTURE REPORTS ONLINE, vol.65, 2009 (SCI-Expanded)
- XXV. **Polymeric systems containing macrocyclic structures for the extraction of ionic species from**

### **aqueous environments**

Rambo B. M., Bill N. L., Aydođan A., Coady D. J., Kim D., Bielawski C. W., Sessler J. L.

ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.237, 2009 (SCI-Expanded)

**XXVI. Poly(methyl methacrylate)s with Pendant Calixpyrroles and Crown Ethers: Polymeric Extractants for Potassium Halides**

Aydođan A., COADY D. J., KIM S. K., AKAR A., BIELAWSKI C. W., Marquez M., SESSLER J. L.

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION, vol.47, no.50, pp.9648-9652, 2008 (SCI-Expanded)

**XXVII. Calix[4]pyrroles with long alkyl chains: Synthesis, characterization, and anion binding studies**

Aydođan A., SESSLER J. L., AKAR A., LYNCH V.

SUPRAMOLECULAR CHEMISTRY, vol.20, pp.11-21, 2008 (SCI-Expanded)

**XXVIII. Poly( methyl methacrylate)s with pendant calixpyrroles: polymeric extractants for halide anion salts**

Aydođan A., COADY D. J., LYNCH V. M., AKAR A., Marquez M., BIELAWSKI C. W., SESSLER J. L.

CHEMICAL COMMUNICATIONS, no.12, pp.1455-1457, 2008 (SCI-Expanded)

**XXIX. Synthesis of meso-tetra acid and ester functionalized calix[4]pyrroles**

Akar A., Aydogan A.

JOURNAL OF HETEROCYCLIC CHEMISTRY, vol.42, no.5, pp.931-934, 2005 (SCI-Expanded)

### **Refereed Congress / Symposium Publications in Proceedings**

**I. Evaluation of Surface Properties of Zinc Borate Filled HTV Silicone Rubber**

Özdemir İ., Üçkol H. İ., Aydođan A., Soykan G., Ghunem R. A., İlhan S.

58th International Universities Power Engineering Conference, UPEC 2023, Dublin, Ireland, 30 August - 01 September 2023

**II. CALIX[4]PYRROLE-MODIFIED SINGLE WALL CARBON NANOTUBES AND ACETONE SENSING PROPERTIES**

BAYSAK E., YUVAYAPAN S., AYDOĐAN A., HIZAL G.

3. International Organic Electronic Material Technologies, 20 - 22 September 2018

**III. Halide Anion Extraction by Using Polystyrenes with Pendant Calix[4]pyrroles**

AYDOĐAN A.

VII. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018

**IV. Reversible Assembly Disassembly Anion Sensing by Calix 4 pyrrole Decorated Gold Nanoparticle**

AYDOĐAN A.

NANOPARTICLES:SYNTHESIS, SELF-ASSEMBLY & APPLICATIONS, İstanbul, Turkey, 23 October 2015

### **Supported Projects**

Aydođan A., TUBITAK Project, Kaliks[4]pirol ve Anyon Tanınması ile AA-BB ve 3A-BB Tipi Supramoleküler Polimer ve Jeller, 2018 - 2020

Aydođan A., Yuvayapan S., Project Supported by Higher Education Institutions, Kaliks4pirol Bazlı Supramoleküler Polimerler, 2017 - 2020

Aydođan A., Project Supported by Higher Education Institutions, Pendant Kaliks[4]pirol İçeren Polistirenler Kullanılarak Halojenür Anyonlarının Ekstraksiyonu, 2016 - 2018

Aydođan A., Project Supported by Higher Education Institutions, Kendi Kendine Kompleksleşen ve Düzenlenen Bir Kaliks (4) prol Bileşiđi, 2013 - 2018

Aydođan A., Project Supported by Higher Education Institutions, Pendant Kaliks (4) Prol Üniteleri İçeren Polistirenler, 2011 - 2018

Aydođan A., Project Supported by Higher Education Institutions, Pendant Kaliks (4) priol İçeren Polistirenlerin Sentezi ve Anyon Ekstraksiyonunda Kullanımı, 2011 - 2016

## **Scientific Refereeing**

Journal of The American Chemical Society, SCI Journal, January 2018

Chemical Communications, SCI Journal, June 2017

## **Tasks In Event Organizations**

Aydoğan A., Yılmaz İ., Hızal G., Öztürk T., Mandal H., Korkusuz F., Kalkan Burat A., Ünlü C., Özcan M., Uluslararası Kimya Olimpiyatları, Workshop Organization, Turkey, Temmuz 2020

## **Metrics**

Publication: 37

Citation (WoS): 327

Citation (Scopus): 337

H-Index (WoS): 10

H-Index (Scopus): 10

## **Scholarships**

Doktora sonrası araştırma bursu, TÜBİTAK, 2012 - 2013

## **Non Academic Experience**

The University of Texas at Austin

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