

# Prof. Ferdane KARAMAN

## Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: X-6046-2019

Yoksis Researcher ID: 2645

## Education Information

1992 - 1993	Post Doctorate, University of Akron, Department of Polymer Engineering, United States Of America
1982 - 1986	Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Kimya, Turkey
1971 - 1976	Undergraduate, Istanbul University, Kimya Fakültesi, Kimya Yüksek Mühendisliği, Turkey

## Foreign Languages

English, C1 Advanced

## Dissertations

1986	Dipole Moments and Intrinsic Viscosities of Poly (para-chlorostyrene) Chains in Various Solvents and Over a Wide Range of Temperature Geniş bir Sıcaklık Bölgesinde Dipol Momentleri ve İntrinsik Viskoziteleri, Istanbul Technical University, Fen Bilimleri Enstitüsü, Doctorate
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## Research Areas

Chemistry, Physical Chemistry, Conductive Polymers, nanocomposites, Characterization of Polymers, Polymeric Materials, Thermodynamics, Surface Chemistry, Natural Sciences

## Academic Titles / Tasks

2000 - 2020	Professor, Yıldız Technical University, Faculty Of Arts & Science, Department Of Chemistry
1992 - 2000	Associate Professor, Yıldız Technical University, Faculty Of Arts & Science, Department Of Chemistry
1986 - 1992	Assistant Professor, Yıldız Technical University, Faculty Of Arts & Science, Department Of Chemistry

## Academic and Administrative Experience

2014 - 2020	Head of Department, Yıldız Technical University, Faculty Of Arts & Science, Department Of Chemistry
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## Courses

2018 - 2019	Doktora Tezi, Doctorate
2018 - 2019	Bitirme Çalışması, Undergraduate
2018 - 2019	Fizikokimyada Özel Konular, Doctorate
2018 - 2019	General Chemistry, Undergraduate
2018 - 2019	Fizikokimya Lab 1, Undergraduate
2018 - 2019	İleri Fizikokimya 1, Postgraduate
2018 - 2019	Uzmanlık Alan Dersi, Doctorate
2018 - 2019	Fizikokimya Lab.2, Undergraduate

## Advising Theses

Continues	Karaman F., Doctorate, N.Subhi(Student), Preparation of thermoelectric hybrid material composed of some conductive polymer-inorganic nanoparticales
Continues	Karaman F., Doctorate, V.UĞRAŞKAN(Student), Organik maddelerle katkılandırılarak iletken polimerlerin termoelektrik özelliklerinin artırılması
2016	KARAMAN F., Postgraduate, O.Çelik(Student), Poli(p-klorostiren) jelinin eldesi ve değişik çözeltilerde davranışın incelenmesi
2016	KARAMAN F., Postgraduate, A.TÜRE(Student), Polikaprolakton ve polikaprolakton/poli (p-klorostiren) karışımının ters gaz kromatografisi ile incelenmesi
2016	KARAMAN F., Doctorate, K.HÜNER(Student), Investigation of magnetic field effect on thermoelectric properties of polythiophen, poly(styrene sulfonic acid) and their nanocomposits.
2016	KARAMAN F., YAZICI Ö., Postgraduate, V.Uğraşkan(Student), Poli(3,4-etilen dioksitiyofen)'in elektrik iletkenliği üzerine demiroksit nanopartikül ve manyetik alan etkisinin incelenmesi
2016	KARAMAN F., Doctorate, A.Ezdeşir(Student), N-Nitrozamin ve Poliaromatik Hidrokarbon İçermeyen Poli(stiren-ko-butadien) Kauçuğu Üretimini Geliştirilmesi
2016	KARAMAN F., Doctorate, Ö.Yazıcı(Student), Poli ( sülfonik difenil anilin )'in ve poli ( etilen glikol ) ile diblok kopolimeerinin yüzey özelliklerinin incelenmesi ve diblok kopolimerin organik/inorganikhibrit partiküllerinin hazırlanması
2016	KARAMAN F., Doctorate, D.Şakar(Student), Bisfenol A'nın tereftalik ve izoftalik asit kopoliesteri ile poli(2,6-dimetil-1,4-fenilen oksit)'in ve karışımlarının çeşitli yöntemlerle incelenmesi
2016	KARAMAN F., Postgraduate, D.İrem(Student), POLİ (SÜLFONİK DİFENİL ANİLİN)'E TUZ ETKİSİNİN İNCELENMESİ
1999	KARAMAN F., Postgraduate, B.Ordu(Student), Polistirenin değişik çözücülerdeki termodinamik etkileşimlerinin incelenmesi
1998	KARAMAN F., Doctorate, İ.Taşkıran(Student), "Yüksek Darbe Dirençli Polistiren ve Kristal Polistiren Karışımlarının İncelenmesi'
1996	KARAMAN F., Postgraduate, İ.Bilgin(Student), "Poli(fenil sülfon)'un Termodinamik Etkileşimlerinin Ters Gaz Kromatografisi ile İncelenmesi"
1996	KARAMAN F., Doctorate, Ö.Cankurtaran(Student), "Poli(dimetil siloksan), Poly(metil metakrilat), Polikarbonatın Çeşitli Çözücülerle ve Poli(metil metakrilat)'ın Polikarbonat ile Etkileşimlerinin Ters Gaz Kromatografisi ile İncelenmesi'
1994	KARAMAN F., Postgraduate, M.Davoodian(Student), Polistirenin Alifatik Esterlerle Etkileşiminin Ters Gaz Kromatografisi ile İncelenmesi
1990	KARAMAN F., Postgraduate, Ö.Cankurtaran(Student), "Poli(p-klorostiren)'in Endotermik ve Ekzotermik Çözücülerle Etkileşiminin Ters Gaz Kromatografisi Metodu ile İncelenmesi

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

- I. Determination of the thermoelectric properties of exfoliated graphitic carbon nitride-filled

### **unsubstituted polythiophene composites**

UĞRAŞKAN V., KARAMAN F.

Fullerenes Nanotubes and Carbon Nanostructures, vol.31, no.4, pp.357-363, 2023 (SCI-Expanded)

- II. **A novel n-type poly(sulfonic acid diphenyl aniline) and its nanocomposites with large Seebeck coefficient enhanced with external magnetic fields**  
HÜNER K., KARAMAN F.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.139, no.44, 2022 (SCI-Expanded)
- III. **Polyaniline/Graphitic Carbon Nitride Nanocomposites with Improved Thermoelectric Properties**  
Uğraşkan V., Karaman F.  
JOURNAL OF ELECTRONIC MATERIALS, vol.50, no.6, pp.3455-3461, 2021 (SCI-Expanded)

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

- I. **Organik Katkılı PEDOT:PSS Kompozitlerin Termoelektrik İncelemesi**  
UĞRAŞKAN V., KARAMAN F.  
31. Ulusal Kimya Kongresi, İstanbul, Turkey, 10 - 13 September 2019
- II. **Synthesis and Thermoelectric Properties of Polythiophene/Poly(3,4-ethylene dioxythiophene) Nanocomposites under Magnetic Field**  
HÜNER K., KARAMAN F.  
5th International Conference on New Trends in Chemistry, Atina, Greece, 22 - 24 April 2019
- III. **THERMOELECTRIC PROPERTIES of POLY (3,4-ETHYLENE DIOXYTHIOPHENE)/TITANIUM DISULPHIDE COMPOSITES**  
Ahmed N. S., Karaman F.  
5th International Conference on New Trends in Chemistry, Athens, Greece, 22 - 24 April 2019, pp.65
- IV. **Oxidant Effect on PEDOT:PSS Conductivity Synthesized in Magnetic Field**  
Uğraşkan V., Yazıcı Ö., Karaman F.  
21st JCF Frühjahrssymposium, Bremen, Germany, 20 - 23 March 2019
- V. **Physicochemical Investigations on Poly(2,2'-((4-vinylbenzyl)azanediyl)bis(ethan-1-ol)) by IGC Method**  
Çiğdem Adıgüzel A., CANKURTARAN Ö., ÇAKAR F., Hepuzer Gürsel Y., Şenkal B. F., KARAMAN F.  
21st JCF Spring Symposium and 2nd European Young Chemists' Meeting, Bremen, Germany, 20 March 2019, pp.128
- VI. **Surface Characterization of a poly(styrene)-co-poly(3-chloro 2-hydro propyl methacrylate)**  
MAĞAZACI C., CANKURTARAN Ö., ÇAKAR F., IŞIK B., KORKMAZ B., ŞENKAL B. F., HEPUZER GÜRSEL Y., KARAMAN F.  
21.JCF-Frühjahrssymposium, Bremen, Germany, 20 March 2019, pp.202
- VII. **Bioinspired Crystallization of Copper Sulfide In The Presence of Some Simple Sugars**  
KARAMAN F., AHMED N. S.  
20th Frühjahrssymposium (JCF), Konstanz, Germany, 21 - 24 March 2019
- VIII. **Preparation and Thermoelectric Properties of Polyaniline/ Poly(3,4-ethylenedioxythiophene) Composites**  
UĞRAŞKAN V., YAZICI Ö., KARAMAN F.  
Frühjahrssymposium EYCheM 2019, Bremen, Germany, 20 - 23 March 2019, pp.177
- IX. **Surface Characterization of Poly(vinyl benzyl chloride) by IGC Method**  
MELEK KÜBRA H., ÇAKAR F., ADIGÜZEL A. Ç., ŞENKAL B. F., CANKURTARAN Ö., GÜRSEL Y., KARAMAN F.  
VII.Polimer Bilim ve Teknoloji Kongresi, Turkey, 9 - 12 September 2018
- X. **Dielectric Spectra of Polythiophene Nanoparticles Synthesized at Different Magnetic Fields**  
Serin M., Karaman F., Ulutaş H. K., Bozoğlu D., Hüner K., Çalışkan M., Akat E., Ulutaş D.  
Turkish Physical Society 34th International Physics Congress, Muğla, Turkey, 5 - 09 September 2018
- XI. **Determination of the Surface Energy of a Chalcone-Based Polymer by IGC Method**  
ADIGÜZEL A. Ç., KORKMAZ B., ÇAKAR F., ŞENKAL B. F., CANKURTARAN Ö., GÜRSEL Y., KARAMAN F.

Icaamm2018, 20 - 24 June 2018

- XII. **A Study on Thermodynamic Properties by IGC Method for a NewChalcone-Based Polymer**  
ADIGÜZEL A. Ç., KORKMAZ B., ÇAKAR F., CANKURTARAN Ö., GÜRSEL Y., ŞENKAL B. F., KARAMAN F.  
Icaamm2018, 20 - 24 June 2018
- XIII. **Investigation of Thermodynamic Characterisation of 4- [4-(10-Undecenyloxy)Benzoyloxy]Benzoic Acid Thermotropic Liquid Crystal by Inverse Gas Chromatography**  
CANKURTARAN Ö., Balkanlı E., OCAK H., ÇAKAR F., Haşhaş N., BİLGİN ERAN B., KARAMAN F.  
20 th JCF Frühjahrssymposium 2018, Konstanz, Germany, 21 March 2018, pp.29
- XIV. **Determination of the Thermodynamic Properties of Poly(methylmethacrylate)-Carbon Nanotube Composite at Infinite Dilution Using Inverse Gas Chromatography**  
ERDOĞAN ÇAKAR A., Aykan ö., ÇAKAR F., CANKURTARAN Ö., KARAMAN F.  
JCF 20. Frühjahrssymposium, Konstanz, Germany, 21 - 24 March 2018
- XV. **Synthesis and Thermoelectric Characterization of Poly(3,4-ethylenedioxythiophene) Composites**  
YAZICI Ö., KARAMAN F.  
20th JCF-Frühjahrssymposium, Konstanz, Germany, 21 - 24 March 2018
- XVI. **Investigation of Thermoelectric Properties ofPoly(ethylene dioxythiophene)-Poly (styrene sulfonic acid)/Copper Sulfide Nanocomposites**  
AHMED N. S., KARAMAN F.  
1ST INTERNATIONAL CONFERENCE ON INNOVATIONS IN NATURAL SCIENCE AND ENGINEERING, 3 - 16 January 2018
- XVII. **Investigation of Thermoelectric Properties of Poly(ethylene dioxythiophene)-Poly (styrene sulfonic acid)/Copper Sulfide Nanocomposites**  
Ahmed N. S., KARAMAN F.  
1ST INTERNATIONAL CONFERENCE ON INNOVATIONS IN NATURAL SCIENCE AND ENGINEERING (ICINSE 2018), Famagusta, Cyprus (Kktc), 03 January 2018, pp.87
- XVIII. **A Simple Green Preparation Method for Zinc Sulfide Nanoparticles**  
Ahmed N. S., KARAMAN F.  
1ST INTERNATIONAL CONFERENCE ON INNOVATIONS IN NATURAL SCIENCE AND ENGINEERING (ICINSE 2018), Famagusta, Cyprus (Kktc), 03 January 2018, pp.151
- XIX. **Study Of Phase Transitions By Means Of Inverse Gas Chromatography For A New Chalcone Functional Group Containing Polymer**  
ADIGÜZEL C., ÇAKAR F., CANKURTARAN Ö., HEPUZER Y., SENKAL F., KARAMAN F.  
Second International Conference On Advances In Science, 13 - 15 September 2017, pp.208-209
- XX. **Thermoelectric properties of unsubstituted polythiophenes synthesized under magnetic field**  
Hüner K., KARAMAN F.  
Italian-Nordic Polymer Future, Pisa, Switzerland, 14 September 2017, pp.32
- XXI. **Dispersive Surface Energy And Acid-Base Parameters of Poly(Vinyl Benzyl Chloride) With Tertiary Amine Containing Chalcone Polymer By Inverse Gas Chromatography**  
ADIGÜZEL A. Ç., ÇAKAR F., SENKAL B. F., HEPUZER Y., CANKURTARAN Ö., KARAMAN F.  
Second International Conference On Advances In Science, ICAS, 13 - 15 September 2017, pp.210
- XXII. **Effect of the magnetic field on thermoelectric on poly (sulfonic acid diphenyl aniline)**  
Hüner K., KARAMAN F.  
The International Joint Science Congress of Materials Polymers, Ohrid, Macedonia, 25 August 2017, pp.16
- XXIII. **Thermoelectric properties of the poly(3,4-ethylene dioxythiophene) - zinc sulfide composites**  
Ahmed N. S., KARAMAN F.  
The International Joint Science Congress of Materials Polymers, Ohrid, Macedonia, 25 August 2017
- XXIV. **Sıvı Kristal malzemelerin Termodinamik Özelliklerinin Ters Gaz Kromatografi Yöntemiyle Belirlenmesi**  
Suna K., Mutlu S., Çakar F., Ocak H., Bilgin Eran B., Cankurtaran Ö., Karaman F.  
8.Ulusal Kimya Öğrenci Kongresi, İstanbul, Turkey, 16 - 18 May 2017
- XXV. **The Separation of Isomers on Liquid Crystal Stationary Phase in Gas Chromatography**

- Balkanlı E., Çakar F., Ocak H., Cankurtaran Ö., Bilgin Eran B., Karaman F.  
19th JCF- Frühjahrssymposium, Mainz, Germany, 29 March - 01 April 2017, pp.168
- XXVI. **Surface Characterisation of 4-[4-(10-Undecenyloxy)Benzoyloxy]Benzoic Acid Liquid Crystal**  
Cankurtaran Ö., Yanic S., Çakar F., Ocak H., Bilgin Eran B., Karaman F.  
19th JCF- Frühjahrssymposium, Mainz, Germany, 29 March - 01 April 2017, pp.289
- XXVII. **Observation of Thermodynamic Interaction Between A Novel Chalcone Containing Polystyrene Based Polymer and Several Solvents**  
KORKMAZ B., ADIGÜZEL C., ÇAKAR F., CANKURTARAN Ö., SENKAL F., HEPUZER Y., KARAMAN F.  
Second International Conference On Advances In Science, ICAS, 13 September - 15 March 2017, pp.207
- XXVIII. **Preparation and surface characterization of poly methyl methacrylate-Carbon nanotube composite**  
AYKAN Ö., ERDOĞAN A., ÇAKAR F., CANKURTARAN Ö., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXIX. **Effect of Magnetic Iron Oxide Nanoparticles on The Electrical Conductivity of Some Poly (3,4-ethylene dioxy thiophene) Composites**  
UĞRAŞKAN V., YAZICI Ö., KARAMAN F.  
18thJCF-Frühjahrssymposium, Kiel, Germany, 17 - 20 March 2016
- XXX. **Enhancement of Electrical Conductivity of Polyaniline with Various Dopants and a Polymer Template**  
YAZICI Ö., UĞRAŞKAN V., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 17 - 20 March 2016
- XXXI. **Enhancement of Electrical Conductivity of Polyaniline with Various Dopants and a Polymer Template**  
Yazıcı Ö., Uğraşkan V., Karaman F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXII. **Aggregation of rod coil block copolymers of poly sulfonic diphenyl aniline b poly ethylene glycol in aqueous solution by variation of pH and salt concentration**  
YAZICI Ö., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXIII. **Effect of Magnetic Iron Oxide Nanoparticles on The Electrical Conductivity of Some Poly 3 4 ethylene dioxy thiophene Composites**  
UĞRAŞKAN V., YAZICI Ö., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXIV. **Enhancement of Electrical Conductivity of Polyaniline with Various Dopants and a Polymer Template**  
YAZICI Ö., UĞRAŞKAN V., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXV. **4 4 2 Methylbutoxy Benzoyloxy Benzoic Acid Thermotropic Liquid Crystal of Considerable Value For The Separation of Closely Related Solvents By Inverse Gas Chromatography**  
Karaca T., Mağazacı C., Ocak H., Çakar F., Cankurtaran Ö., Bilgin Eran B., Karaman F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXVI. **Preparation and surface characterization of poly methyl methacrylate Carbon nanotube composite**  
AYKAN Ö., ERDOĞAN A., ÇAKAR F., CANKURTARAN Ö., KARAMAN F.  
18th JCF-Frühjahrssymposium, Kiel, Germany, 16 - 19 March 2016
- XXXVII. **4-[4-(10-Undecenyloxy)benzoic acid]benzoic acid Sıvı Kristalinin Yüzey Özelliklerinin Belirlenmesi, P126**  
Haşhaş N., GUZELLER D., OCAK H., ÇAKAR F., CANKURTARAN Ö., BİLGİN ERAN B., KARAMAN F.  
5. Fiziksel Kimya Kongresi, Konya, Turkey, 16 May 2015
- XXXVIII. **Poli(eter imid) ile 4-[4-(tetradesiloksi)benzoiloksi]benzoik asit Sıvı Kristali Karışımlarının Karışılabilirliğinin Viskozite Yöntemi ile İncelenmesi, P46**  
Özkal S., ÇAKAR F., OCAK H., BİLGİN ERAN B., CANKURTARAN Ö., KARAMAN F.  
5. Fiziksel Kimya Kongresi, Konya, Turkey, 16 May 2015
- XXXIX. **Investigation on Thermodynamic Properties of 4-Decyloxybiphenyl-4'-carboxylic acid Liquid Crystal by Inverse Gas Chromatography**  
Çakar F., Karanlık G., Ocak H., Bilgin Eran B., Cankurtaran Ö., Karaman F.

All In One Conferences, Dubai, United Arab Emirates, 24 March 2015, pp.1

- XL. **Crystallization of calcium carbonate in the presence of water soluble block copolymer of polyzwitterion and polyethylene glycol**  
Karaman F., Yazıcı Ö.  
All In One Conferences- International Conference on New Trends in Chemistry, Dubai, United Arab Emirates, 24 - 28 March 2015, pp.36
- XLII. **4-Desiloksi-4'-BifenilKarboksilik Asid Sıvı Kristalinin Yüzey Özelliklerinin Ters Gaz Kromatografisi İle İncelenmesi**  
ÇAKAR F., Keskinlik M., KARANLIK G., OCAK H., CANKURTARAN Ö., BİLGİN ERAN B., KARAMAN F.  
4. Fiziksel Kimya Kongresi, Denizli, Turkey, 05 June 2014
- XLIII. **Fractal growth patterns of aggregation of poly (sulfonic acid diphenyl aniline) in the films of aqueous solution casting**  
Karaman F.  
European Polymer Congress EPF 2013, 01 September 2013
- XLIV. **Mineralization of calcium carbonate in the presence of a zwitterionic block copolymer**  
Yazıcı Ö., Karaman F.  
European Polymer Congress EPF 2013, Florence, Italy, 16 - 21 June 2013, pp.98
- XLV. **4-[4-((S)-Sitroneliloksi]benzoiloksi]benzoik asid Sıvı Kristalinin Yüzey Özelliklerinin Ters Gaz Kromatografisi Yöntemi İle İncelenmesi, P91**  
EROL I., ÇAKAR F., OCAK H., BİLGİN ERAN B., CANKURTARAN Ö., KARAMAN F.  
III. Fiziksel Kimya Günleri, Balıkesir, Turkey, 12 July 2012
- XLVI. **Chemiresistive Thin Film Impedimetric Sensors based on Poly(diphenylamine sulfonic acid) Conducting Polymer**  
CANKURTARAN H., YAZICI Ö., KARAMAN F., DİNÇ Ş.  
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, pp.557
- XLVII. **Effect of pH and Salt on Poly (Sulfonic Diphenyl Aniline) in Aqueous Solutions**  
YAMAN D. İ., YAZICI Ö., KARAMAN F.  
IUPAC 9th International Conference on Advanced Polymers via Macromolecular Engineering, Cappadocia, Turkey, 5 - 08 September 2011
- XLVIII. **Effect of pH and salt on poly (sulfonic diphenyl aniline) in aqueous solutions**  
YAZICI Ö., KARAMAN F.  
APME 2011- IUPAC 9th International Conference on Advanced Polymers via Macromolecular Engineering, 01 September 2011
- XLIX. **Electrical Properties Of Blends Of Poly(Ether Imide) And A Copolyester Of Bisphenol-A With Terephthalic And Isophthalic Acids.**  
KURUOĞLU F., SERİN M., CANKURTARAN Ö., KARAMAN F.  
28. Uluslararası Fizik Kongresi, 01 September 2011
- L. **Synthesis and Thermodynamical Interactions of 4 Bromo 1,3 Bis( 4 )4 (10 Undecenyloxy) Benzoyloxy) Benzonyloxy) Benzene Liquid Crystal with Some Solvents**  
YÖRÜR Ç., CANKURTARAN Ö., BİLGİN-ERAN B., KARAMAN F.  
Physics Congress-IX., 01 October 2010
- LI. **Determination of Zeta Potentials and Surface Energies of Poly (Diphenyl Amine Sulfonic Acid) by Inverse Gas Chromatography**  
Yazıcı Ö., Karaman F.  
POLYSOLVAT-8, 8th International IUPAC Conference Polymer-Solvent Complexes & Intercalates, Strasbourg, France, 5 - 08 July 2010, pp.22
- LII. **Determination of the Acid-Base Characteristics of Neutral Polysulfonic Diphenyl Aniline Surface by Zeta Potential and Inverse Gas Chromatography**  
Yazıcı Ö., Karaman F.  
POLYSOLVAT-8, 8th International IUPAC Conference Polymer-Solvent Complexes & Intercalates, Strasbourg, France, 5 - 08 July 2010, pp.35

- LII. **Sülfonik Poli(Difenilamin) Esaslı Nem Sensörü**  
Cankurtaran H., Şadoğlu N., Yazıcı Ö., Karaman F.  
24. Ulusal Kimya Kongresi, Zonguldak, Turkey, 29 June - 02 July 2010, pp.94
- LIII. **Determination of Dielectric Properties by Solubility Parameter of Poly (4-Methyl-Pentene)**  
Cankurtaran Ö., Yazıcı Ö., Çakar F., Karaman F.  
25th International Physical Congress, Muğla, Turkey, 25 - 29 August 2008, pp.376
- LIV. **Synthesis of a Liquid Crystal and Investigation of Mesophase Transitions, Kaire**  
OCAK H., YAZICI Ö., BİLGİN ERAN B., CANKURTARAN Ö., KARAMAN F.  
International Conference on Chemistry, Kahire, Egypt, 03 March 2008
- LV. **A Study on The Response of Some Solvent Vapors on Conductometric Sensor Based on The Poly(Ether Imide)-Graphite Composites**  
Çakar F., Moroğlu M., Cankurtaran H., Cankurtaran Ö., Karaman F.  
5th Aegean Analytical Chemistry Days, Thessaloniki, Greece, 5 - 08 October 2006, pp.132
- LVI. **Grafit ile Katkılanmış Poli(Eter İmid)'in İletkenlik Sensörü Olarak Kullanımı ve Solventlerle Etkileşiminin Ters Gaz Kromatografisi ile İncelenmesi**  
ÇAKAR F., Moroğlu R., CANKURTARAN H., CANKURTARAN Ö., KARAMAN F.  
XX. Ulusal Kimya Kongresi, Kayseri, Turkey, 04 September 2006
- LVII. **Bisfenol A'nın Tereftalik Asit ve İzofthalik Asit Kopoliesterleri ile Poli(2,6-Dimetil-1,4-fenilen oksit) Karışımlarının Elektriksel İletkenliğinin İncelenmesi**  
Serin M., Şakar Daşdan D., Cankurtaran H., Cankurtaran Ö., Karaman F.  
XIX. Ulusal Kimya Kongresi, Aydın, Turkey, 30 September - 04 October 2005, pp.677
- LVIII. **Electrical properties of poly(2,6-dimethyl-1,4-phenylene oxide) films with different type of dopants**  
Serin M., Şakar Daşdan D., Cankurtaran H., Cankurtaran Ö., Karaman F.  
7th Austrian Polymer Meeting, Graz, Austria, 4 - 06 July 2005, vol.43, pp.102
- LIX. **Electrical Properties of Doped Ardel@D-100 Films Depending on The Sample Thickness**  
Serin M., Cankurtaran Ö., Şakar D., Karaman F.  
2 nd International Aegean Physical Chemistry Days, Balıkesir, Turkey, 7 - 10 October 2003, pp.1
- LX. **5-Desiloksi-2-[[[4-heksiloksifenil]imino]metil]-fenol 'ün Aromatik Çözücülerle Termodinamik Etkileşimleri**  
Cankurtaran Ö., Yazıcı Ö., Çakar F., Bilgin Eran B., Karaman F.  
22. Ulusal Kimya Kongresi, Gazimagusa, Cyprus (Kkct), 06 October 2008, pp.147
- LXI. **Syntesis and Thermodynamical Interactions of 4-Bromo-1,3-Bis{4-[4'-(10-Undecenyloxy) Benzoyloxy] Benzoyloxy} Benzene Liguid Crystal with Some Solvents**  
ÇAKAR F., Yörür Ç., Cankurtaran Ö., Bilgin Eran B., Karaman F.  
IX.Chemical Physics Congress
- LXII. **Polikarbonat/ ARDEL? D-100 Karışımlarının Karışabilirliğinin Viskozite Yöntemi ile İncelenmesi**  
CANKURTARAN Ö., Cansever Ş., Moroğlu M., Şakar D., Çakar F., Karaman F.  
2.Ulusal Polimer Bilim ve Teknoloji Kongresi ve Sergisi, Şanlıurfa, Turkey, pp.102
- LXIII. **Poli (etilen-blok-etilen glikol)'ün Yüzey Özelliklerinin Ters Gaz Kromatografi Metodu İle Belirlenmesi**  
CANKURTARAN Ö., Dülger Ö., Kıyçak O., Kaleoğlu S., Şakar D., Yazıcı Ö., Çakar F., Karaman F.  
24. Ulusal Kimya Kongresi, Zonguldak, Turkey, pp.-96
- LXIV. **Poli(Eter İmid) ve Poli(Metil Metakrilat) Karışımlarının Karışabilirliklerinin Viskozite Yöntemiyle İncelenmesi**  
CANKURTARAN Ö., Çakar F., Adlı E., Mutlu Yaniç S., Karaman F.  
4. Fiziksel Kimya Kongresi, Denizli, Turkey
- LXV. **Determination of The Secondary Transitions and Thermodynamic parameters of Poly(2,6-Dimethyl-1,4-Phenylene Oxide) with Some Acetates**  
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- LXVI. **5-((S)-3,7-dimetiloktiloksi)-2-[[[4-(dodesiloksi)fenil]imino]metil]fenol Sıvı Kristalinin Bazı Çözücülerle Termodinamik Özelliklerinin Belirlenmesi**

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5. Fiziksel Kimya Kongresi, Konya, Turkey

- LXVII. **Polietilen Glikol'ün Çeşitli Çözücülerle Termodinamik Etkileşim Parametrelerinin Ters Gaz Kromatografi Metodu İle Belirlenmesi**  
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24. Ulusal Kimya Kongresi, Zonguldak, Turkey
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XX. Ulusal Kimya Kongresi, Kayseri, Turkey
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- LXX. **Tosillendirilmiş Polietilen Glikol'ün Çeşitli Çözücülerle Termodinamik Etkileşim Parametrelerinin Ters Gaz Kromatografi Metodu İle Belirlenmesi**  
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24. Ulusal Kimya Kongresi, Zonguldak, Turkey, 29 June 2010, pp.97
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25 th International Physics Congress, Muğla, Turkey
- LXXII. **Investigation of Surface Characterisation of 4-(2-Ethyhexyloxy) Benzoyloxy? Benzoic Acid Thermotropic Liquid Crystal by Inverse Gas Chromatography**  
CANKURTARAN Ö., Çakar F., Ocak H., Öztürk E., Bilgin Eran B., Karaman F.  
4TH Portuguese young chemists meeting, 4PYCCHEM, Portugal
- LXXIII. **Determination Of The Ratio Of Crystallinity And Physicochemical Properties Of Poly(4-Methyl-1-Pentene) Using Inverse Gas Chromatography**  
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CANKURTARAN Ö., coşkun S., Bilgin Eran B., Karaman F.  
1st European Chemistry Congress, Hungary
- LXXV. **Evaluations On The Miscibility And Second Order Transitions Of Poly(2,6-Dimethyl-1,4-Phenylene Oxide) with A Copolyester of Bisphenol A-with Terephthalic Acid and Isophthalic Acid Mixtures**  
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CANKURTARAN Ö., Şakar D., Karaman F.  
XX. Ulusal Kimya Kongresi, Kayseri, Turkey
- LXXVII. **Equation Of State Parameters Of 4-(Tetradecyloxy)-N-(4-Hexyloxyphenyl)-2-Hydroxybenzalımına Liquid Crystal With Some Solvents**  
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- LXXIX. **A Study On The Thermodynamic Properties Of Poly(Phenyl Sulfone)-Graphite Composites**  
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- LXXX. **Evaluation Of Solubility And Thermodynamic Interactions Of Poly(4-Methyl-1-Pentene) Using Inverse Gas Chromatography**



- Cankurtaran Ö., Yazıcı Ö., Karaman F.  
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- LXXXI. **A Study on The Miscibility of Poly (Ether Imide)- A Copolyester of Bisphenol-A with Terephthalic Acid and Isophthalic Acid Blends by Viscometry**  
CANKURTARAN Ö., Çakar F., Şakar D., Karaman F.  
Chemical Physics VII, Isparta, Turkey
- LXXXII. **Mesogenik (S)-5-(10-Undekeniloksi)-2-[[[4-(2-metilbutoksi)fenil] imino] metil]fenol' ün Sentezi ve Faz Geçiş Sıcaklıklarının Belirlenmesi**  
Cankurtaran Ö., Yaşa Şahin Ö., Yazıcı Ö., Karaağaç B., Şakar D., Bilgin Eran B., Karaman F.  
24. Ulusal Kimya Kongresi, Zonguldak, Turkey, 29 June 2010, pp.66
- LXXXIII. **Ultem<sup>TM</sup>/ardel<sup>TM</sup> Karışımının Termal Geçiş Sıcaklıklarının Ters Gaz Kromatografi Metoduyla Belirlenmesi**  
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- LXXXIV. **Swelling Behavior of Poly (Methyl Acrylate) Networks in Various Solvents and Linear Poly (Methyl Acrylate) Solutions**  
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Chemical Physics VII, Isparta, Turkey
- LXXXV. **Ardel? D-100/Poli(2,6-Dimetil-1,4-Fenilen Oksit) Karışımının Polimer-Polimer Etkileşim Parametrelerinin Ters Gaz Kromatografi Yöntemiyle Belirlenmesi**  
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XXI. Ulusal Kimya Kongresi, Malatya, Turkey
- LXXXVI. **Miscibility of polystyrene and copolyester of bisphenol a with terephthalic acid and isophthalic acid mixtures in dilute chloroform solutions**  
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Chemical Physics Conference VIII, İstanbul, Turkey, pp.13
- LXXXVII. **Use Of Inverse Gas Chromatography To Determine Of Miscibility Of A Mixture Of Poly (Ether Imide) And A Copolyester Of Bisphenol A-With Terephthalic Acid And Isophthalic Acid**  
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Chemical Physics Conference VIII, İstanbul, Turkey, pp.23
- LXXXVIII. **Surface Characterization of Poly(n-Hexyl Methacrylate) by Inverse Gas Chromatography at Infinite Dilution**  
Cankurtaran Ö., Yazıcı Ö., Şakar D., Karaman F.  
8th International IUPAC Conference Polymer-Solvent Complexes & Intercalates, Strasbourg, France, 05 July 2010, pp.36
- LXXXIX. **An Analysis on The Determination of The Thermodynamical Interactions of Poly (tert-Butyl Acrylate-b-Methyl Metacrylate) Synthesized via Atom Transfer Radical Polymerization**  
CANKURTARAN Ö., Aydın S., Erdoğan T., Şakar D., Hızal G., Tunca Ü., Karaman F.  
6th Advanced Polymers and Macromoleculer Engineering(APME), İstanbul, Turkey
- XC. **A Study on Swelling Behaviour of Poly(p-Chlorostyrene) Networks**  
CANKURTARAN Ö., Çelik O., Şakar D., Karaman F.  
Polymer Gels & Networks, Czech Republic
- XCI. **A Study on Swelling Behavior of Poly (Methyl Acrylate) Networks in Linear Poly (Methyl Acrylate) Solutions**  
ÇAKAR F., Şakar D., Cankurtaran Ö., Karaman F.  
3rd China- Europe Symposium
- XCII. **Miscibility Studies Of Binary Mixtures Of Polymers By Viscometry: Ardel? D-100 / Poly (2,6-Di Methyl-1,4- Phenylene Oxide)**  
CANKURTARAN Ö., Şakar D., Çakar F., Karaman F.  
Chem.05 Green and Sustainable Chemistry in Developing Countries, Egypt, pp.16
- XCIII. **Surface Characterization and Thermodynamic Interactions of Poly(ethylene glycol)/solvent systems**

### by Inverse Gas Chromatography

Cankurtaran Ö., Sesigür F., Şakar D., Yazıcı Ö., Çakar F., Karaman F.

8th International IUPAC Conference Polymer-Solvent Complexes & Intercalates, Strasbourg, France, 05 July 2010, pp.16

- XCIV. **Investigation of Thermodynamic and Surface Characterisation of 5-((S)-3,7-dimethyloctyloxy)-2-[[[4 (dodecanyloxy)phenyl]imino]methyl]phenol Calamitic Liquid Crystal by Inverse Gas Chromatography**  
CANKURTARAN Ö., Mutlu Yaniç S., Güzeller D., Çakar F., Bilgin Eran B., Karaman F.  
The International Conference on Science, Ecology and Technology 1, ICONSETE, Austria, pp.39
- XCIV. **A Study on The Miscibility of A Copolyester of Bisphenol-A with Terephthalic Acid and Isophthalic Acid- Poly(2,6-Dimethyl -1,4- Phenylene Oxide) Blends” Processing and Properties of Reinforced Polymers**  
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3rd China-Europe Symposium, Hungary, pp.50
- XCVI. **Determination of Polymer-Polymer Interaction Parameters by Inverse Gas Chromatography”, Processing and Properties of Reinforced Polymers**  
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- XCVII. **Detecting of Some Chemical Vapor Analytes Using A Polyester of Bisphenol-A with Terephthalic and Isophthalic Acid Loaded with Graphite**  
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5th Aegean Analytical Chemistry Days, Greece
- XCVIII. **A Study on Swelling Behavior of Poly (Methyl Acrylate) Networks in Linear Poly (Methyl Acrylate) Solutions”, Processing and Properties of Reinforced Polymers**  
CANKURTARAN Ö., Çakar F., Şakar D., Karaman F.  
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- XCIX. **Poli (Hekzil Metakrilat)’ın Çeşitli Çözücülerle Termodinamik Etkileşim Parametrelerinin Ters Gaz Kromatografi Yöntemi İle Belirlenmesi**  
Cankurtaran Ö., Yazıcı Ö., Şakar D., Karaman F.  
23.Ulusal Kimya Kongresi, Sivas, Turkey, 16 June 2009, pp.104
- C. **Calcium phosphate mineralization with a sulfonated polyaniline derivative**  
Yazıcı Ö., Emir N. S., Karaman F.  
4PYCheM – 4th Portuguese Young Chemists Meeting, Coimbra, Portugal, 29 April - 01 May 2014, pp.50
- CI. **Mesogenik 4-Tetradesiloksi-N-(4-Heksiloksifenil)-2-Hidroksibenzalimin’in Faz Geçişlerinin ve Termodinamik Etkileşim Parametrelerinin Ters Gaz Kromatografisi ile Belirlenmesi**  
CANKURTARAN Ö., Yörür Ç., Çakar F., Bilgin Eran B., Karaman F.  
XXI. Ulusal Kimya Kongresi, Malatya, Turkey
- CII. **The Evaluation Of Miscibility Of Poly (Ether Imide)- Polyisobutylene Blends By Viscometry**  
CANKURTARAN Ö., Çakar F., Karaman F.  
Chemical Physics Conference VIII, İstanbul, Turkey, pp.24

## Supported Projects

2022 - 2023	Poliselenofen/Bakır Sülfür Hibrit Kompozitlerin Sentezi, Karakterizasyonu ve Termoelektrik Özellikleri, Project Supported by Higher Education Institutions
2019 - 2020	Synthesis And Thermoelectric Properties Of Polyaniline Nanocomposites With Organic Material Additives, TUBITAK Project
2017 - 2020	Bazı İletken Polimerİnorganik Nanopartikül Kompozitlerinden Termoelektrik Malzemeler Hazırlanması, Project Supported by Higher Education Institutions
2016 - 2019	Politiyofen, Poli (sulfonik asit difenil anilin) ve Nanokompozitlerinin Termoelektrik Özelliklerine Manyetik Alanın Etkisinin Araştırılması, Project Supported by Higher Education Institutions

2016 - 2019	Politiyofen, Poli (sülfonik asit difenil anilin) ve Nano kompozitlerinin Termoelektrik Özelliklerine Manyetik Alanın Etkisinin Araştırılması, Project Supported by Higher Education Institutions
2017 - 2018	Manyetik alan altında politiyofen/poli(3,4-etilen dioksi tiyofen) nanokompozitlerinin sentezi ve karakterizasyonu, TUBITAK Project
2015 - 2018	Politiyofen/poly(3,4-etilendioksi tiyofen) nanokompozitlerin termoelektrik özelliklerine manyetik alanın etkisinin araştırılması, Project Supported by Higher Education Institutions
2015 - 2018	Politiyofen/poly(3,4-etilen dioksi tiyofen) nanokompozitlerin termoelektrik özelliklerine manyetik alanın etkisinin araştırılması, Project Supported by Higher Education Institutions
2016 - 2017	Manyetik alan altında politiyofen/poli(3,4-etilendioksi tiyofen) nanokompozitlerinin sentezive karakterizasyonu, TUBITAK Project
2015 - 2016	Poli(3,4-etilen dioksitiyofen)'in elektrik iletkenliği üzerine demiroksit nanopartikül ve manyetik alan etkisinin incelenmesi, Project Supported by Higher Education Institutions
2012 - 2015	Sıvı Kristal Kil Sıvı Kristal Organokil Nanokompozitlerin Hazırlanması ve Karakterizasyonu, Project Supported by Higher Education Institutions
2011 - 2015	Poli(sülfonik difenil anilin) e Tuz Etkisinin İncelenmesi, Project Supported by Higher Education Institutions
2011 - 2014	Poli(sülfonik difenil anilin) e Tuz Etkisinin İncelenmesi, Project Supported by Higher Education Institutions
2010 - 2012	Sıvı Kristal Materyallerin Sentezi ve Fizikokimyasal Karakterizasyonu , Project Supported by Higher Education Institutions
2010 - 2012	Poli sülfonikdifenil anilin in ve Poli etilen glikol ile Diblok Kopolimerinin Yüzey Özelliklerinin incelenmesi ve Diblok Kopolimerin Organik inorganik Hibrit Partiküllerinin Hazırlanması, Project Supported by Higher Education Institutions
2010 - 2012	Poli(sülfonikdifenil anilin)in ve Poli(etilen glikol)ile Diblok Kopolimerinin Yüzey Özelliklerinin incelenmesi ve Diblok Kopolimerin Organik/inorganik Hibrit Partiküllerinin Hazırlanması, Project Supported by Higher Education Institutions
2008 - 2011	Yarıiletken, amfifilik ve kendiliğinden düzenlenebilen diblok kopolimer yardımıyla hazırlanan organik/inorganik hibrit nanopartiküllerin incelenmesi, TUBITAK Project
2007 - 2011	Yüksek Vakum Elektriksel Ölçüm Sistemi ile Karbon Nanotüp Katkılı Polimerlerin Farklı Şartlarda Elektriksel Özelliklerinin Belirlenmesi, Project Supported by Higher Education Institutions
2007 - 2011	Yüksek vakum elektriksel ölçüm sistemi ile karbon nanotüp katkı polimerlerin farklı şartlarda elektriksel özelliklerinin belirlenmesi, Project Supported by Higher Education Institutions
2007 - 2011	Elektriksel Ölçüm Sisteminin Kurulması ve İleri Teknoloji Malzemeleri Olarak Kullanılan İnce Filmlerin Opto-elektronik Karakterizasyonu, Project Supported by Higher Education Institutions
2010 - 2010	Investigation of surface properties of magnetic iron oxide nanoparticles and thermodynamic interactions of magnetite-polymer composites by reverse gas chromatography, TUBITAK Project
2008 - 2010	Amfifilik blok kopolimerlerin sentezi ve misel özelliklerinin incelenmesi, Project Supported by Higher Education Institutions
2007 - 2010	Grafit ve Karbon Nanotüp Esaslı Organik Gaz/Buhar Sensörlerinin Cevaplarına Polimerin ve Gazın/Buharın Yapısal Özelliklerinin Etkilerinin İncelenmesi, Project Supported by Higher Education Institutions
2007 - 2010	Grafit ve Karbon Nanotüp Esaslı Organik Gaz/Buhar Sensörlerinin Cevaplarına Polimerin ve Gazın/Buharın Yapısal Özelliklerinin Etkilerinin İncelenmesi, Other International Funding Programs
2006 - 2010	Poli(eter imid)' in (Ultem), bisfenol-A' nın tereftalik asit ve izoftalik asit kopolimerleri (Ardel) ve poli(2,6-dimetil-1,4-fenilen oksit) (PPO) ile ikili karışımlarının karışabilirlik bölgelerinin gaz kromatografisini ve viskozite yöntemleri ile belirlenme, Project Supported by Higher Education Institutions
2004 - 2009	Poli(metil akrilat)/poli(vinil asetat) karışımlarının ters gaz kromatografisi, viskozite ve jellerinin çözeltide şişirilmesi ile incelenmesi, Project Supported by Higher Education Institutions

1999 - 2006	Çapraz Bağlanmış Polistiren Poli (4-Klorostiren) ve Polikaprolaktonun Çeşitli Çözücü ve Çözeltilerdeki Şişme Termodinamiklerinin İncelenmesi, Project Supported by Higher Education Institutions
1999 - 2005	Çapraz Bağlanmış Polistiren, Poli(4-kloro stiren) ve Polikaprolakton'un Çeşitli Çözücü ve Çözeltilerdeki Şişme Termodinamiklerinin İncelenmesi, Project Supported by Higher Education Institutions
1998 - 2002	Polikaprolaktonun ve Poli (4-kloro stiren)-Polikaprolakton Karışımının Ters Gaz Kromatografisi İle İncelenmesi, Project Supported by Higher Education Institutions
1994 - 1996	Investigation of Polystyrene-Ester and Poly (methyl methacrylate) -Polycarbonate Interactions by Reverse Gas Chromatography, TUBITAK Project

## Patent

2021	Karaman F., Uğraşkan V., Production of polyaniline graphitic carbon nitride nanocomposites with high electrical conductivity, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: TR 2019 08623 B , Standard Registration, 2021
2021	Uğraşkan V., Karaman F., Production of polyaniline graphitic carbon nitride nanocomposites with high electrical conductivity, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: US 11,208,531 B2 , 2021

## Scientific Refereeing

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## Metrics

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H-Index (WoS): 13  
H-Index (Scopus): 14

## Non Academic Experience

1992 - 1993	The University of Akron
1976 - 1978	Marshall Boya ve Vernik San