

## Asst. Prof. NADİR KİRAZ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: C-1687-2016

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### Education Information

Doctorate, Akdeniz University, Institute of Science, Chemistry, Turkey 2005 - 2011

Postgraduate, Akdeniz University, Institute Of Science, Chemistry, Turkey 2002 - 2005

Undergraduate, Inonu University, Fen-Edebiyat Fakültesi, Department of Chemistry, Turkey  
1997 - 2001

### Dissertations

Doctorate, Synthesis of Hybrit Materials Which have Powerfull Mechanical Properties for Appication of Implantation, Akdeniz University, Institute of Science, Kimya Bölümü, 2011

Postgraduate, Production of Frosted Glass by Sol-Gel Method, Akdeniz University, Institute of Science, Kimya Bölümü, 2005

### Research Areas

Chemistry, Inorganic Chemistry, Inorganic Polymers, nanoclusters, Silicon Chemistry, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Akdeniz University, Faculty Of Science, Department Of Chemistry, 2011 - Continues

Research Assistant, Akdeniz University, Institute of Science, Kimya , 2002 - 2011

### Academic and Administrative Experience

Deputy Head of Department, Akdeniz University, 2013 - 2020

### Courses

Fundamental Chemistry and Laboratory Application-I, Undergraduate, 2022 - 2023  
Biomaterials, Undergraduate, 2022 - 2023  
Final Thesis-II, Undergraduate, 2022 - 2023  
Bioinorganic Chemistry, Postgraduate, 2022 - 2023  
Advanced Scientific Research Techniques and Ethics, Doctorate, 2022 - 2023  
Silicon Technology, Doctorate, 2022 - 2023  
Final Thesis-I, Undergraduate, 2022 - 2023  
Fundamental Chemistry and Laboratory Application-I, Undergraduate, 2022 - 2023  
Inorganic Chemistry-III, Undergraduate, 2022 - 2023  
Inorganic Chemistry Lab., Undergraduate, 2022 - 2023

## Advising Theses

Kiraz N., PREPARATION AND CHARACTERIZATION OF SILICA BASED NANOCLUSTER DENTAL NANOCOMPOSITE MATERIALS, Postgraduate, F.HATEGEKIMANA(Student), 2021  
Kiraz N., ADSORPTION APPLICATION OF VARIOUS HEAVY METALS AND ANIONS BY USING MAGNETIC MODIFIED MESOPOROSITY MATERIALS, Doctorate, A.GENÇER(Student), 2021  
Kiraz N., SYNTHESIS of B<sub>2</sub>O<sub>3</sub>(BORON OXIDE) AND B<sub>4</sub>C (BORON CARBIDE) NANOFIBERS BY ELECTROSPINNING PROCESS AND PREPARATION OF THEIR COMPOSITES, Postgraduate, A.Dörtler(Student), 2018  
Kiraz N., DEVELOPMENT OF NEW GENERATION COMPOSITE ARTIFICIAL TEETH HAVING ANTIBACTERIAL AND HYDROPHOBIC PROPERTIES, Doctorate, Z.Yeşil(Student), 2018

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

- I. **Synthesis and characterization of surface-modified magnetic mesoporous silicate materials for phosphate adsorption**  
Gençer A., Uysal Karataş B., Topel Ö., Kiraz N.  
Turkish Journal of Chemistry, vol.48, no.1, pp.50-64, 2024 (SCI-Expanded)
- II. **Preparation and characterization of silica based nanoclusters as reinforcement for dental applications**  
Hategekimana F., KIRAZ N.  
Polymer Composites, vol.43, no.10, pp.7564-7574, 2022 (SCI-Expanded)
- III. **Low-temperature synthesis of boron carbide nanofibers via electrospinning to reinforce composites**  
Dortler Kesici A., Kiraz N.  
CHEMICAL PAPERS, vol.75, no.11, pp.5839-5848, 2021 (SCI-Expanded)
- IV. **N-heterocyclic carbene Pd(II) complex supported on Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>: Highly active, reusable and magnetically separable catalyst for Suzuki-Miyaura cross-coupling reactions in aqueous media**  
Akkoc M., Bugday N., Altın S., Kiraz N., Yaşar S., Özdemir İ.  
JOURNAL OF ORGANOMETALLIC CHEMISTRY, vol.943, 2021 (SCI-Expanded)
- V. **Mechanical, anti-bacterial, and easy-to-clean properties of hybrid polymer-based composites containing modified SiO<sub>2</sub> prepared by thermal polymerization**  
KESMEZ Ö., ARPAÇ E., KIRAZ N., Selli N. T., TUNALI A.  
CHEMICAL PAPERS, vol.74, no.10, pp.3383-3398, 2020 (SCI-Expanded)
- VI. **Enhanced anticancer effect of cetuximab combined with stabilized silver ion solution in EGFR-positive lung cancer cells**  
ÖZKAN A., Erdogan A., Ozkan O., Manguoglu E., KIRAZ N.  
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.44, no.4, pp.426-437, 2019 (SCI-Expanded)
- VII. **Hydrophilic hybrid SiO<sub>2</sub>:polyethylene glycol-3-isocyanato-propyltriethoxysilane nanocomposite films**  
BURUNKAYA E., Kesmez Ö., KIRAZ N., ÇAMURLU H. E., Asiltürk M., ARPAÇ E.

THIN SOLID FILMS, vol.522, pp.238-246, 2012 (SCI-Expanded)

- VIII. **Sol-gel thin films with anti-reflective and self-cleaning properties**  
ÇAMURLU H. E., Kesmez Ö., BURUNKAYA E., KİRAZ N., Yeşil Z., Asilturk M., ARPAÇ E.  
CHEMICAL PAPERS, vol.66, no.5, pp.461-471, 2012 (SCI-Expanded)
- IX. **Preparation of Sn doped nanometric TiO<sub>2</sub> powders by reflux and hydrothermal syntheses and their characterization**  
KİRAZ N., BURUNKAYA E., Kesmez Ö., ÇAMURLU H. E., Asilturk M., Yeşil Z., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.59, no.2, pp.381-386, 2011 (SCI-Expanded)
- X. **Effect of acid, water and alcohol ratios on sol-gel preparation of antireflective amorphous SiO<sub>2</sub> coatings**  
Kesmez Ö., BURUNKAYA E., KİRAZ N., ÇAMURLU H. E., Asilturk M., ARPAÇ E.  
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.357, no.16-17, pp.3130-3135, 2011 (SCI-Expanded)
- XI. **Structural and optical properties of thin films prepared from surface modified ZrO<sub>2</sub>**  
Asilturk M., BURUNKAYA E., Sayilkan F., KİRAZ N., ARPAÇ E.  
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.357, no.1, pp.206-210, 2011 (SCI-Expanded)
- XII. **Antibacterial glass films prepared on metal surfaces by sol-gel method**  
KİRAZ N., Kesmez Ö., BURUNKAYA E., Budama L., ACAR B., Asilturk M., ÇAMURLU H. E., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.56, no.3, pp.227-235, 2010 (SCI-Expanded)
- XIII. **Effect of amine catalysts on preparation of nanometric SiO<sub>2</sub> particles and antireflective films via sol-gel method**  
Kesmez Ö., KİRAZ N., BURUNKAYA E., ÇAMURLU H. E., Asilturk M., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.56, no.2, pp.167-176, 2010 (SCI-Expanded)
- XIV. **Sol-gel synthesis of IPTES and D10H consisting fluorinated silane system for hydrophobic applications**  
BURUNKAYA E., KİRAZ N., Kesmez Ö., Asilturk M., ÇAMURLU H. E., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.56, no.2, pp.99-106, 2010 (SCI-Expanded)
- XV. **Sol-gel synthesis of 3-(triethoxysilyl)propylsuccinicanhydride containing fluorinated silane for hydrophobic surface applications**  
KİRAZ N., BURUNKAYA E., Kesmez Ö., Asilturk M., ÇAMURLU H. E., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.56, no.2, pp.157-166, 2010 (SCI-Expanded)
- XVI. **Preparation of aluminum-doped zinc oxide (AZO) nano particles by hydrothermal synthesis**  
BURUNKAYA E., KİRAZ N., KESMEZ O., ÇAMURLU H. E., Asilturk M., ARPAÇ E.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.55, no.2, pp.171-176, 2010 (SCI-Expanded)
- XVII. **Sn<sup>4+</sup> or Ce<sup>3+</sup> doped TiO<sub>2</sub> photocatalytic nanometric films on antireflective nano-SiO<sub>2</sub> coated glass**  
BURUNKAYA E., KESMEZ O., KİRAZ N., ÇAMURLU H. E., ASİLTÜRK M., ARPAÇ E.  
MATERIALS CHEMISTRY AND PHYSICS, vol.120, no.2-3, pp.272-276, 2010 (SCI-Expanded)
- XVIII. **Photocatalytic antibacterial performance of Sn<sup>4+</sup>-doped TiO<sub>2</sub> thin films on glass substrate**  
Sayilkan F., Asilturk M., KİRAZ N., BURUNKAYA E., ARPAÇ E., Sayilkan H.  
JOURNAL OF HAZARDOUS MATERIALS, vol.162, no.2-3, pp.1309-1316, 2009 (SCI-Expanded)
- XIX. **Photocatalytic performance of Sn-doped TiO<sub>2</sub> nanostructured thin films for photocatalytic degradation of malachite green dye under UV and VIS-lights**  
Sayilkan F., Asilturk M., TATAR P., KİRAZ N., ŞENER S., ARPAÇ E., Sayilkan H.  
MATERIALS RESEARCH BULLETIN, vol.43, no.1, pp.127-134, 2008 (SCI-Expanded)
- XX. **Preparation of re-usable photocatalytic filter for degradation of Malachite Green dye under UV and vis-irradiation**  
SAYILKAN F., Asilturk M., TATAR P., Kiraz N., Arpac E., SAYILKAN H.  
JOURNAL OF HAZARDOUS MATERIALS, vol.148, no.3, pp.735-744, 2007 (SCI-Expanded)
- XXI. **Antibacterial thin films on glass substrate by sol-gel process**  
TATAR P., Kiraz N., Asilturk M., SAYILKAN F., SAYILKAN H., Arpac E.  
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.17, no.3, pp.525-533, 2007 (SCI-Expanded)

- XXII. **Photocatalytic performance of Sn-doped TiO<sub>2</sub> nanostructured mono and double layer thin films for Malachite Green dye degradation under UV and vis-lights**  
SAYILKAN F., Asilturk M., TATAR P., Kiraz N., Arpac E., SAYILKAN H.  
JOURNAL OF HAZARDOUS MATERIALS, vol.144, no.1-2, pp.140-146, 2007 (SCI-Expanded)
- XXIII. **Photocatalytic performance of Sn-doped and undoped TiO<sub>2</sub> nanostructured thin films under UV and vis-lights**  
Arpac E., SAYILKAN F., Asilturk M., TATAR P., Kiraz N., SAYILKAN H.  
JOURNAL OF HAZARDOUS MATERIALS, vol.140, no.1-2, pp.69-74, 2007 (SCI-Expanded)
- XXIV. **A novel approach to the hydrothermal synthesis of anatase Titania nanoparticles and the photocatalytic degradation of rhodamine B**  
Akarsu M., Asilturk M., Sayilkan F., Kiraz N., Arpac E., Sayilkan H.  
TURKISH JOURNAL OF CHEMISTRY, vol.30, no.3, pp.333-343, 2006 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Effect of Silver Ion Surface Coating on Antimicrobial and Cutting Efficiencies of Nickel-titanium Rotary Files**  
Cora S., Er K., Taşdemir T., Kiraz N., Becer B., Felek R., Er H.  
MEANDROS MEDICAL AND DENTAL JOURNAL, vol.21, no.1, pp.26-33, 2020 (ESCI)
- II. **Comparison of cellular responses of parental and epirubicin-resistant non-small cell lung cancer cells against stabilized-ag ion solution induced injury**  
Erdogan A., Ozkan O., KIRAZ N., ÖZKAN A.  
CUKUROVA MEDICAL JOURNAL, vol.41, no.1, pp.74-81, 2016 (ESCI)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Effects of Cetuximab and Stabilized Silver Solution on Cell Cycle in Lung Cancer Cells**  
Erdoğan A., ÖZKAN A., Özkan Ö., MANGUOĞLU A. E., KIRAZ N.  
1st Eurasia Biochemical Approaches & Technologies (EBAT) Congress, Antalya, Turkey, 27 - 30 October 2018, pp.21
- II. **Effects of Cetuximab and Stabilized Silver Solution on Cell Cycle in Lung Cancer Cells**  
Erdoğan A., ÖZKAN A., Özkan Ö., MANGUOĞLU A. E., KIRAZ N.  
1st Eurasia Biochemical Approaches & Technologies (EBAT) Congress, Antalya, Turkey, 27 - 30 October 2018, pp.21
- III. **Effect of Total Filler Content and Micron Particle Size on Biomachanical Performance of Nanohybrid Composite Developed for Potential Dental Applications**  
YEŞİL ACAR Z., KIRAZ N., ASİLTÜRK M.  
V. Uluslararası Polimerikler Sempozyumu ve Çalıştayları, İzmir, Turkey, 2 - 04 November 2017
- IV. **Evaluation of Dental Resin Nanocomposites Containing Nanosized/Microsized Fillers and Hydrophobic and/or Antibacterial Agents**  
YEŞİL ACAR Z., KIRAZ N., ASİLTÜRK M.  
International Congress on, Chemical, Biological and Environmental Science, Kyoto, Japan, 9 - 11 May 2017
- V. **Stabilized-Silver Ion Solution Enhances Cetuximab Cytotoxicity in Lung and Epidermoid Carcinoma Cells**  
ERDOĞAN A., ÖZKAN A., MANGUOĞLU AYDEMİR A. E., KIRAZ N., Özkan Ö.  
4th Inter. Congress of the Molecular Biology Association of Turkey, Ankara, Turkey, 27 - 29 November 2015, pp.77
- VI. **Stabilized-Silver Ion Solution Enhances Cetuximab Cytotoxicity in Lung and Epidermoid Carcinoma Cells**  
ERDOĞAN A., ÖZKAN A., MANGUOĞLU AYDEMİR A. E., KIRAZ N., Özkan Ö.

4th Inter. Congress of the Molecular Biology Association of Turkey, Ankara, Turkey, 27 - 29 November 2015, pp.77

- VII. **The Effect of Inorganic Fillers Size on Flexural Strength of Dental Composite Materials**  
YEŞİL ACAR Z., KİRAZ N., ASİLTÜRK M.  
14th International Union of Materials Research Societies-International Conference on Advanced Materials, JEJU, South Korea, 25 - 29 October 2015
- VIII. **The Effect of PMMA Type on Mechanical Behavior of Dental Composites**  
YEŞİL ACAR Z., KİRAZ N., ASİLTÜRK M.  
14th International Union of Materials Research Societies-International Conference on Advanced Materials (IUMRS-ICAM), JEJU, South Korea, 25 - 29 October 2015
- IX. **Combined effect of Cetuximab and Stabilized- Ag ion solution on epirubicin-resistant human Non-Small Cell Lung Cancer (NSCLC) comparing with parental cells**  
ÖZKAN A., ERDOĞAN A., MANGUOĞLU AYDEMİR A. E., KİRAZ N.  
40 th FEBS Congress, Berlin, Germany, 4 - 09 July 2015, pp.248
- X. **Combined effect of Cetuximab and Stabilized-Ag ion solution on epirubicin-resistant human Non-Small Cell Lung Cancer (NSCLC) comparing with parental cells**  
ÖZKAN A., Erdogan A., Manguoglu E., KİRAZ N.  
40th Congress of the Federation-of-European-Biochemical-Societies (FEBS) - The Biochemical Basis of Life, Berlin, Germany, 4 - 09 July 2015, vol.282, pp.248
- XI. **Thermochromic and Easy to Clean (ETC) Polymer Based Composite**  
KESMEZ Ö., Tunalı A., Tamsü Selli N., KİRAZ N., ARPAÇ E.  
SERES'14, III. International Ceramic, Glass, Porcelain Enamel, Glaze and Pigment Congress, Eskişehir, Turkey, 15 - 17 October 2014
- XII. **The Effects of Ceramic Particle Size in Polymer Based Composites**  
KESMEZ Ö., Tamsü Selli N., Tunalı A., KİRAZ N., ARPAÇ E.  
SERES'14, III. International Ceramic, Glass, Porcelain Enamel, Glaze and Pigment Congress, Eskişehir, Turkey, 15 - 17 October 2014
- XIII. **Effects of stabilized-Ag ion solution on 8-OHdG and MDA levels in different human lung cancer cells (H1299)**  
ÖZKAN A., Özkan Ö., ERDOĞAN A., Kiraz N.  
38th Congress of the Federation-of-European-Biochemical-Societies (FEBS), Russia, 1 - 04 December 2013, vol.280, pp.305
- XIV. **Antimicrobial and cutting efficiencies of surface coated rotary root canal instruments**  
CORA S., ER K., TAŞDEMİR T., KİRAZ N., FELEK R., ER H.  
46th Meeting of the Continental European Division of the International Association for Dental Research (CED-IADR), 4 - 07 September 2013
- XV. **antimicrobial and cutting efficiencies of surface coated root canal instruments**  
Cora S., ER K., Taşdemir T., KİRAZ N., FELEK R., ER H.  
46th meeting of the continental european division of the international association for dental research with the scandinavian division (NOF), Floransa, Italy, 4 - 07 September 2013, pp.481-482
- XVI. **Antimicrobial and cutting efficiencies of surface coated root canal instruments**  
Er H., Cora S., Er K., Taşdemir T., Kiraz N., Felek R.  
46th meeting of the Continental European Division of the International Association for Dental Research with the Scandinavian Division (NOF), Florence, Italy, 4 - 07 September 2013, pp.481-482
- XVII. **antimicrobial and cutting efficiencies of surface coated root canal instruments**  
ER H., Cora S., ER K., Taşdemir T., KİRAZ N., FELEK R.  
46th meeting of the continental european division of the international association for dental research with the scandinavian division (NOF), Floransa, Italy, 4 - 07 September 2013, pp.481-482
- XVIII. **Effects of stabilized-Ag ion solution on 8-OHdG and MDA levels in different human lung cancer cells (H1299)**  
ÖZKAN A., Özkan Ö., ERDOĞAN A., KİRAZ N.  
38th Congress of the Federation-of-European-Biochemical-Societies (FEBS), St. Petersburg, Russia, 6 - 11 July

2013, vol.280, pp.305

- XIX. Effects of stabilized-Ag ion solution on 8-OHdG and MDA levels in different human lung cancer cells (H1299)**  
ÖZKAN A., Ozkan O., Erdogan A., KİRAZ N.  
38th Congress of the Federation-of-European-Biochemical-Societies (FEBS), Saint Peter, Guernsey And Alderney, 6 - 11 July 2013, vol.280, pp.305
- XX. Photocatalytic properties of Sn-doped nano-TiO<sub>2</sub> / GLYMO films**  
Akarsu E., Yesil Z., Kesmez Ö., Kiraz N., Çamurlu H. E., Arpaç E.  
7th Nanoscience and Nanotechnology Conference - NanoTR-VII, İstanbul, Turkey, 27 June - 01 July 2011
- XXI. Hydrothermal Synthesis of ITO for transparent and reflective thin films**  
ASİLTÜRK M., AKARSU E., KİRAZ N., KESMEZ Ö., ARPAÇ E.  
6th Nanoscience and Nanotechnology Conference - NanoTR-VI, Turkey, 15 - 18 June 2010
- XXII. Environmental Friendly, Antibacterial and Easy to Clean Nano-Coating**  
Akarsu E., Kesmez Ö., Kiraz N., Yesil Z., Erinç N., Arpaç E.  
6th Nanoscience and Nanotechnology Conference - NanoTR-VI, İzmir, Turkey, 15 - 18 June 2010

## Other Publications

- I. Combined effect of Cetuximab and Stabilized-Ag ion solution on epirubicin-resistant human Non-Small Cell Lung Cancer (NSCLC) comparing with parental cells**  
ÖZKAN A., ERDOĞAN A., MANGUOĞLU AYDEMİR A. E., KİRAZ N.  
Other, pp.248-48, 2015
- II. Effects of stabilized-Ag ion solution on 8-OHdG and MDA levels in different human lung cancer cells (H1299)**  
ÖZKAN A., ÖZKAN Ö., ERDOĞAN A., KİRAZ N.  
Other, pp.305, 2013

## Supported Projects

Kiraz N., TUBITAK Project, Development of Injectable Antibacterial Hydrogels Containing Boron and Investigation of Their Use as Intracanal Medicaments in Endodontic Treatment, 2022 - 2024

KİRAZ N., Gençer A., UYSAL KARATAŞ (İKİNCİ DANIŞMAN) B., Project Supported by Higher Education Institutions, Magnetik Modifiye Mezogözenekli Malzemeler Kullanılarak Çeşitli Ağır Metal ve Anyonların Adsorpsiyon Uygulaması, 2016 - 2021

ÖZKAN A., KİRAZ N., ERDOĞAN A., Project Supported by Higher Education Institutions, Comparison Of Cellular Responses Of Parental And EpirubicinResistant NonSmall Cell Lung Cancer Cells Against StabilizedAg Ion Solution Induced Injury, 2018 - 2020

Kiraz N., TUBITAK Project, Development of Antibacterial and Hydrophobic Nanohybrid Composite Restorative Dental Materials, 2014 - 2017

Kiraz N., Yeşil Acar Z., Asiltürk Ersoy M., Industrial Thesis Project, Antibacterial Hydrophobic Next-Generation Dental Composite Production, 2013 - 2016

Kiraz N., Industrial Thesis Project, Production of Flexible and Easily Shapeable Ceramic Materials, 2012 - 2015

## Scientific Refereeing

Project Supported by Higher Education Institutions, April 2015

Tubitak 46. Ortaöğretim Öğrencileri Araştırma Projeleri Yarışması , Other Journals, March 2015