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SCIENTIFIC BACKGROUND:

- 2015 - Present** *Bilkent University, Ankara, Turkey.* Associate Professor of Chemistry
Department of Chemistry
<http://www.fen.bilkent.edu.tr/~cvchem>
- 2006 - 2015** *Bilkent University, Ankara, Turkey.* Assistant Professor of Chemistry
Department of Chemistry
- 2004 - 2006** *Pacific Northwest National Laboratory, WA, USA,* Post-Doctoral Research Scientist
Institute for Interfacial Catalysis (iIC), <http://iic.pnl.gov/>
Environmental and Molecular Sciences Laboratory (EMSL)
- 1999 - 2004** *Texas A&M University, TX, USA,* <http://www.chem.tamu.edu> , Ph.D. in Chemistry
Thesis: *Polarization Modulation Infrared Reflection Absorption Spectroscopy for Heterogeneous Catalytic Applications at Elevated Pressures.*
Advisor: *Prof. D. Wayne Goodman*
- 1995 - 1999** *Bilkent University, Ankara, Turkey.* Bachelor of Science (Summa cum laude),
Department of Chemistry

ACHIEVEMENTS AND AWARDS:

- 2018** Synchrotron-Light for Experimental Science and Applications in the Middle East (SESAME) Scientific Advisory Committee Member
- 2016** Science Academy Young Scientist (BAGEP) Award
- 2014** TUBITAK Research Incentive Award (TÜBİTAK Teşvik Ödülü), The Scientific and Technical Research Council of Turkey
- 2014** Distinguished Lecturer Award, Bilkent University
- 2014** Defense Industry Special Prize, SASAD Defense & Aerospace Industry Manufacturers Association
- 2013** FABED Eser Tumen Scientific Achievement Award
- 2012** METU Parlar Foundation Research Prize
- 2010** Outstanding Young Scientist Prize, Turkish Academy of Sciences, "TUBA-GEBIP"
- 2006** TUBITAK "CAREER Program" Grant, The Scientific and Technical Research Council of Turkey.
- 2004** Morton M. Traum Award, American Vacuum Society, Anaheim, CA.
- 2004** Chair's Award, Gordon Research Conference on Catalysis 2004, New London, NH.
- 2004** Celanese Chemicals Outstanding Graduate Student Award, College Station, TX.
- 2003** American Vacuum Society (AVS) Graduate Research Award, Baltimore, MD.
- 2003** Richard J. Kokes Award, North American Catalysis Society (NACS), Cancun, Mexico.
- 2003** Sharon Dabney Memorial Award, Texas A&M University, College Station, TX.
- 2003** Texas Surface Science Round-Up 2003, Best Oral Presentation Award, Roundtop, TX.
- 2003** Industry-University Cooperative Chemistry Program (IUCCP) 2003, Oral Presentation Award, Texas A&M University, College Station, TX.
- 2002** 224th ACS National Meeting, Division of Colloid and Surface Chemistry, Poster Presentation Award, Boston, Massachusetts.
- 1999** TUBITAK Scientific Travel Grant, The Scientific and Technical Research Council of Turkey (TUBITAK), Ankara, Turkey.
- 1995-1999** Bilkent University Undergraduate Educational Fellowship, Bilkent University, Ankara, Turkey.
- 1995-1997** Undergraduate Scholarship for the Education of Young Scientists, The Scientific and Technical Research Council of Turkey (TUBITAK), Ankara, Turkey.

SERVICES FOR SCIENTIFIC JOURNALS :

- 2013-present** CATALYSIS LETTERS (Springer Series): Scientific Advisory Board Member
- 2013-present** TOPICS IN CATALYSIS (Springer Series): Scientific Advisory Board Member

ACADEMIC PUBLICATIONS:

Number of SCI Publications: 57, Number of SCI Citations: 1284, h-index: 23

1. "Isocyanate Formation in the Catalytic Reaction of CO+NO on Pd(111): An in situ Infrared Spectroscopic Study at elevated Pressures"
Ozensoy, E.; Hess, Ch.; Goodman, D. W.
J. Am. Chem. Soc., **2002** (124) 8524
2. "Polarization Modulation Infrared Reflection Absorption Spectroscopy at elevated Pressures: CO adsorption on Pd(111) at atmospheric pressures"
Ozensoy, E.; Meier D. C.; Goodman, D. W.
J. Phys. Chem. B, **2002** (106) 9367
3. "A combined in situ infrared and kinetic study of the catalytic CO+NO reaction on Pd(111) at pressures up to 240 mbar"
Hess, Ch.; Ozensoy, E.; Goodman, D. W.
J. Phys. Chem. B, **2003** (107) 2759.
4. "CO Dissociation at Elevated Pressures on Supported Pd Nano-clusters"
Ozensoy, E.; Min, B. K.; Goodman, D. W.
J. Phys. Chem. B, **2004** (108) 4351.
5. "Understanding the catalytic conversion of automobile exhaust emissions using model catalysts: CO + NO reaction on Pd (111)"
Ozensoy, E.; Hess, C; Goodman, D. W.
Topics in Catalysis, **2004** (28) 13.
6. "Vibrational spectroscopic studies of CO/NO adsorption and reaction on Pd model catalysts"
Ozensoy, E. and Goodman, D. W.
Phys. Chem. Chem. Phys., **COVER ARTICLE**, **2004** (6) 3765.
7. "Reply to: Comment on 'Combined in Situ and Infrared Kinetic Study of the Catalytic CO + NO Reaction on Pd(111) at Pressures up to 240 mbar"
Hess, C.; Ozensoy, E. and Goodman, D. W.
J. Phys. Chem. B **2004** (108) 14181.
8. "Electronic and vibrational properties of ultrathin SiO₂ films grown on Mo (112)"
Wendt, S.; Ozensoy, E.; Frerichs, M.; Cai, Y.; Chen, M.-S.; Goodman D. W.
Phys. Rev. B **2005** (72) 115409.
9. "Interaction of water with ordered Al₂O₃ ultra thin films grown on NiAl(100)"
Ozensoy, E.; Szanyi, J.; Peden, C. H. F.;
J. Phys. Chem. B **2005** (109) 3431.
10. "Formation of a high coverage (3x3)-7NO adsorption state on Pd (111) at elevated pressures: Interplay between kinetic and thermodynamic accessibility"
Ozensoy, E.; Hess, C.; Goodman, D. W.; Loffreda, D.; Sautet, P.
J. Phys. Chem. B **2005** (109) 5414.
11. "NO₂ Adsorption on ultrathin θ -Al₂O₃ films: Formation of Nitrate and Nitrite Species"
Ozensoy, E.; Szanyi, J.; Peden, C. H. F.;
J. Phys. Chem. B **2005**, (109) 15977.
12. "NO dimer and dinitrosyl formation on Pd(111): From UHV to elevated pressure conditions"
Hess, C.; Ozensoy, E.; Yi, C. W.; Goodman, D. W.,
J. Am. Chem. Soc. **2006** (128) 2988.

ACADEMIC PUBLICATIONS (Continued):

13. "Low temperature H_2O and NO_2 Coadsorption and Reaction on ultrathin θ - Al_2O_3 films"
Ozensoy, E.; Szanyi, J.; Peden, C. H. F.;
J. Phys. Chem. B **2006**, (110) 8025 .
14. "Ba Deposition and Oxidation on θ - Al_2O_3 /NiAl(100) ultrathin films. Part I: Anaerobic Deposition Conditions"
Ozensoy, E.; Peden, C. H. F.; Szanyi, J.;
J. Phys. Chem. B, **2006**, (110) 17001.
15. "Ba Deposition and Oxidation on θ - Al_2O_3 /NiAl(100) ultrathin films. Part II: $O_2(g)$ Assisted Ba Oxidation "
Ozensoy, E.; Peden, C. H. F.; Szanyi, J.;
J. Phys. Chem. B, **2006**, (110) 17009.
16. "Model NO_x Storage Systems: Storage Capacity and Thermal Aging of BaO/ θ - Al_2O_3 /NiAl(100)"
Ozensoy, E.; Peden, C. H. F.; Szanyi, J.;
J. Catal., **2006**, (243) 149.
17. "NO_x Reduction on a Transition Metal-free γ - Al_2O_3 Catalyst Using Dimethylether (DME)"
Ozensoy, E.; Herrling, D.; Szanyi, J.;
Catal. Today, **2008**, (136) 46.
18. "The effect of impregnation strategy on methane dry reforming activity of Ce promoted Pt/ZrO₂"
Ozkara-Aydinoglu, S.; Ozensoy, E.; Aksoylu, E. A.,
Int. J. of Hydrogen Energy, **2009** (34) 9711 .
19. "Nature of the Ti-Ba interactions on the BaO/TiO₂/Al₂O₃ NO_x Storage System"
Andonova, S. M.; Şentürk, G. S., Kayhan, E.; Ozensoy, E. ,
J. Phys. Chem. C, **2009**, (113) 11014.
20. "Fe Promoted NO_x Storage Materials: Structural Properties and NO_x Uptake"
Kayhan, E.; Andonova, S. M.; Şentürk, G. S., Chusuei, C. C.; Ozensoy, E.
J. Phys. Chem. C, **2010** (114) 1, 357.
21. "Fine-tuning the Dispersion and the Mobility of BaO Domains on NO_x Storage Materials via TiO₂ Anchoring Sites"
Andonova, S. M.; Şentürk, G. S., Kayhan, E.; Ozensoy, E.
J. Phys. Chem. C, **2010** (114) 40, 17003 (*Invited Article*)
22. "Direct Evidence for the Instability and Deactivation of Mixed-Oxide Systems: Influence of Surface Segregation and Subsurface Diffusion"
Emmez, E.; Vovk, E. I.; Bukhtiyarov, V. I.; Ozensoy, E.
J. Phys. Chem. C, **2011** (115) 22438.
23. "Role of the Exposed Pt Active Sites and BaO₂ Formation in NO_x Storage Reduction Systems: A Model Catalyst Study on BaO_x/Pt(111)"
Vovk, E. I.; Emmez, E.; Erbudak, M.; Bukhtiyarov, V. I.; Ozensoy, E.
J. Phys. Chem. C, **2011** (115) 24256.
24. "SO_x Uptake and Release Properties of TiO₂/Al₂O₃ and BaO/TiO₂/Al₂O₃ Mixed Oxide Systems as NO_x Storage Materials"
Şentürk, G. S.; Vovk, E. I.; Zaikovskii, V. I.; Say, Z.; Soylu, A. M.; Bukhtiyarov, V. I.; Ozensoy, E.
Catal. Today, **2012** (184) 54.
25. "First-principles investigation of NO_x and SO_x adsorption on anatase-supported BaO and Pt overlayers"
Hummatov, R.; Toffoli, D.; Gülseren, O.; Ozensoy, E.; Üstünel, H.
J. Phys. Chem. C, **2012**, (116) 6191.
26. "Enhanced Sulfur Tolerance of Ceria-Promoted NO_x Storage Reduction (NSR) Catalysts: Sulfur Uptake, Thermal Regeneration and Reduction with H₂(g)"
Say, Z.; Vovk, V.I.; Bukhtiyarov, V.I.; Ozensoy, E.
Topics in Catalysis, **2013** (56) 950.

ACADEMIC PUBLICATIONS (Continued):

27. "Interactive Surface Chemistry of CO₂ and NO₂ on Metal Oxide Surfaces: Competition for Catalytic Adsorption Sites and Reactivity"
Vovk, E.I.; Turksoy, A.; Bukhtiyarov, V.I.; **Ozensoy, E.**
J. Phys. Chem. C, 2013 (117) 7713.
28. "Influence of Ceria on the NO_x Reduction Performance of NO_x Storage Reduction (NSR) Catalysts"
Say, Z.; Vovk, E.I.; ; Bukhtiyarov, V.I.; **Ozensoy, E.**
Applied Catalysis B, 2013 (142-143) 89.
29. "In-situ Vibrational Spectroscopic Studies on Model Catalyst Surfaces at Elevated Pressures"
Ozensoy, E.; Vovk, E.I.
Topics in Catalysis (Invited Article), 2013 (56) 15, 1569.
30. "Chemical deactivation by phosphorous under lean hydrothermal conditions over Cu/BEA NH₃ - SCR catalysts"
Andonova, S.M.; Vovk, E. I.İ; Sjöblom, J.; **Ozensoy, E.**, Olsson L
Applied Catal. B, 2014 (147) 251.
31. "Palladium doped Perovskite-Based NO Oxidation Catalysts: The Role of Pd and B-sites for NO_x Adsorption Behavior via in-situ Spectroscopy"
Say, Z.; Dogac, M.; Vovk, E.I.; Kalay, :E.; Kim, C. H.; Li, W.; Kalay, E.; **Ozensoy, E.**
Applied Catal. B, 2014 (154–155) 51–61.
32. "NO_x Storage and Reduction Pathways on Zirconia and Titania Functionalized Binary and Ternary Oxides as NO_x Storage and Reduction (NSR) Systems"
Say, Z.; Tohumeken, M.; **Ozensoy, E.**
Catal. Today, 2014 (231) 135–144 .
33. "Thermal evolution of structure and photocatalytic activity in polymer microsphere templated TiO₂ microbowls"
Erdogan, D. A.; Polat, M.; Garifullin, R.; Guler, M. O.; **Ozensoy, E.**
Applied Surf. Sci. 2014 (308) 50-57
34. "TiO₂-Al₂O₃ Binary Mixed Oxide Surfaces for Photocatalytic NO_x Abatement"
Soylu, A. M.; Polat, M.; Erdogan, D. A.; Yildirim, C.; Birer, O.; **Ozensoy, E.**
Applied Surf. Sci., 2014 (318) 142-149
35. "An XPS study of the interaction of model Ba/TiO₂ AND Ba/ZrO₂ NSR catalysts with NO₂"
Smirnov, M. Y.; Kalinkin, A. V.; Nazimov, D. A.; Bukhtiyarov, V. I.; Vovk, E. I.; **Ozensoy, E.**
J. Struc. Chem. 2014 (55) 757-763
36. "Influence of the Sol-Gel Synthesis Protocol On the Photocatalytic Activity of TiO₂-Al₂O₃ Binary Mixed Oxide Catalysts"
Soylu, A. M.; Polat, M.; Erdogan, D. A.; Erguven, H.; **Ozensoy, E.**
Catal. Today, 2015 (241) 25-32
37. "NaCl-Promoted CuO-RuO₂/SiO₂ Catalysts for Propylene Epoxidation with O₂ at Atmospheric Pressures: A Combinatorial Micro-reactor Study"
Kalyoncu, S.; Duzenli, D.; Onal, I.; Seubsai, A.; Noon, D.; Senkan, S.; Say, Z.; Vovk, V.I.; **Ozensoy, E.**
Catalysis Letters 2015 (145) 596-905
38. "Acetaldehyde Partial Oxidation on the Au(111) Model Catalyst Surface: C-C bond Activation and Formation of Methyl Acetate as an Oxidative Coupling Product"
Karatok, M.; Vovk, E.I.; Shah, A.; Turksoy, A.; **Ozensoy, E.**
Surface Science 2015 (641) 289.

ACADEMIC PUBLICATIONS (Continued):

39. "A Versatile Bio-inspired Material Platform for Catalytic Applications: Micron-Sized "Buckyball-Shaped" TiO₂ Structures"
Erdogan, D. A.; Solouki, T.; **Ozensoy, E.**
RSC Advances **2015** (5) 41174.
40. "MnO_x-Promoted PdAg Alloy Nanoparticles for the Additive-Free Dehydrogenation of Formic Acid at Room Temperature"
Bulut, A.; Yurderi, M.; Karatas, Y.; Say, Z.; Kivrak, H.; Kaya, M.; Gulcan, M.; **Ozensoy, E.**; Zahmakiran, M.
ACS Catalysis, **2015** 5 (10) 6099.
41. "Spectroscopic Investigation of Sulfur-Resistant Pt/K₂O/ZrO₂/TiO₂/Al₂O₃ NSR/LNT Catalysts"
Say, Z.; Tohumeken, M.; **Ozensoy, E.**
Catal. Today, **2016** (267) 167.
42. "Photocatalytic Conversion of Nitric Oxide on Titanium Dioxide: Cryotrapping of Reaction Products for Online Monitoring by Mass Spectrometry"
Lu, W.; Olaitana, A. D.; Brantley, M. R.; Behrooz, Z.; Erdogan, D. A.; **Ozensoy, E.**; Solouki, T.
J. Phys. Chem. C, **2016** (120) 8056.
43. "Comparative Analysis of Reactant and Product Adsorption Energies in the Selective Oxidative Coupling of Alcohols to Esters on Au(111)"
Şenozan, S.; Ustunel, H.; Karatok M.; Vovk, V. I.; Shah, A. A. **Ozensoy, E.**; Toffoli, D.
Topics in Catal., **2016** (59) 1383.
44. "Photocatalytic Activity of Mesoporous Graphitic Carbon Nitride (mpg-C₃N₄) Towards Organic Chromophores under UV and VIS Light Illumination"
Erdogan, D. A.; Sevim, M.; Kisa, E.; Emiroglu, D. B.; Karatok, M.; Vovk, E. I.; Bjerring, M.; Akbey, Ü.; Metin, Ö.; **Ozensoy, E.**
Topics in Catal., **2016** (59) 1305.
45. "A Methodology to Discriminate Between Hydroxyl Radical-induced Processes and Direct Charge-transfer Reactions in Heterogeneous Photocatalysis"
Bertinetti, S.; Minella, M.; Barsotti, F.; Maurino, V.; Minero, C.; **Ozensoy, E.**; Vione, D.
J. Adv. Oxidation Tech. **2016** (19) 236.
46. "Sulfur-Tolerant BaO/ZrO₂/TiO₂/Al₂O₃ Quaternary Mixed Oxides for DeNO_x Catalysis"
Say, Z.; Mihai, O.; Tohumeken, M.; Ercan, K.E.; Olsson, L.; **Ozensoy, E.**
Catal. Sci. Tech. **2017** (7) 133.
47. "Hierarchical Synthesis of Corrugated Photocatalytic TiO₂ Microsphere Architectures on Natural Pollen Surfaces"
Erdogan, D. A.; **Ozensoy, E.**
Applied Surf. Sci., **2017** (403) 159.
48. "Selective Catalytic Ammonia Oxidation to Nitrogen by Atomic Oxygen Species on Ag(111)"
Karatok, M.; Vovk, E. I.; Koç, A. V., **Ozensoy, E.**
J. Phys. Chem. C, **2017** (121) 41, 22985.
49. "Sulfur Poisoning and Regeneration Behavior of Perovskite-Based NO Oxidation Catalysts"
Kurt, M.; Say, Z.; Ercan, K. E.; Vovk, E. I.; Kim, C. H.; **Ozensoy, E.**
Topics in Catal., **2017** (60) 40.
50. "The Effects of Co:Ce Loading Ratio And Reaction Conditions On CDRM Performance Of Co-Ce/Al₂O₃ Catalysts"
Paksoy, A. I.; Caglayan, B. S.; **Ozensoy, E.**; Aksoylu A. E.
Int. Journal of Hydrogen Energy, **2018** (43) 4321.
51. "Pt/CeO_x/ZrO_y/γ-Al₂O₃ Ternary Mixed Oxide DeNO_x Catalyst: Surface Chemistry and NO_x Interactions"
Andonova, S., Ok, A. S., Drenchev, N., **Ozensoy, E.**, Hadjiivanov, K.
J. Phys. Chem. C, **2018** (122) 24, 12850.

ACADEMIC PUBLICATIONS (Continued):

52. “Dry reforming of glycerol over Rh-based ceria and zirconia catalysts: New insights on catalyst activity and stability”
Bulutoglu, P.S.; Say, Z.; Bac, S.; **Ozensoy, E.**; Avci, A.K.
Applied Catal. A: General, 2018 (564) 157.
53. “Trade-off between NO_x Storage Capacity and Sulfur Tolerance on Al₂O₃/ZrO₂/TiO₂ – based DeNO_x Catalysts”
Say, Z.; Mihai, O.; Kurt, M.; Olsson, L.; **Ozensoy, E.**
Catal. Today., 2019 (320) 152.
54. “CdTe Quantum Dot-Functionalized P25 Titania Composite with Enhanced Photocatalytic NO₂ Storage Selectivity under UV and Vis Irradiation”
Leinen, M. B.; Dede, D.; Khan, M. U.; Caglayan, M.; Kocak, Y.; Demir, H.V.; **Ozensoy, E.**
ACS Applied Materials & Interfaces, 2019 (11) 1, 865.
55. “Enhanced photocatalytic NO_x oxidation and storage under visible-light irradiation by anchoring Fe₃O₄ nanoparticles on mesoporous graphitic carbon nitride (mpg-C₃N₄)”
Irfan, M.; Sevim, M.; Kocak, Y.; Balci, M.; Metin, O.; **Ozensoy, E.**
Applied Catal. B:Environmental, 2019 (249) 126.
56. “Exceptionally active and stable catalysts for CO₂ reforming of glycerol to syngas”
Bac, S.; Say, Z.; Koçak, Y.; Ercan K. E.; Harfouche, M.; **Ozensoy, E.**; Avci, A.K.
Applied Catal. B:Environmental, 2019 (256) 117.
57. “Enhancement of Photocatalytic NO_x Abatement on Titania via Additional Metal Oxide NO_x-Storage Domains: Interplay between Surface Acidity, Specific Surface Area, and Humidity”
Çağlayan, M.; Irfan, M.; Ercan, K., E.; Kocak, Y.; **Ozensoy, E.**
Applied Catal. B:Environmental, 2019 accepted for publication (doi.org/10.1016/j.apcatb.2019.118227)
58. “Enhancement of Formic Acid Dehydrogenation Selectivity of Pd(111) Single Crystal Model Catalyst Surface via Bronsted Bases”
Karakurt, B.; Kocak, Y.; **Ozensoy, E.**
J. Phys. Chem. C, 2019 accepted as a Cover Article (doi.org/10.1021/acs.jpcc.9b08707)

CONFERENCE PRESENTATIONS:

- 2002 224th ACS National Meeting, Division of Colloid and Surface Chemistry, Boston, MA, **Poster Presentation**: “In-situ infrared spectroscopic investigation of CO and NO adsorption on Pd(111) at quasi-atmospheric pressures”
- 2002 224th ACS National Meeting, Division of Colloid and Surface Chemistry, Boston, MA, **Oral Presentation**: “In-situ monitoring of the CO+NO reaction on Pd(111) at elevated pressures using polarization modulation infrared reflection absorption spectroscopy”
- 2003 **Industry-University Cooperative Chemistry Program (IUCCP) 2003**, Texas A&M University, College Station, TX. **Oral Presentation**: “Understanding Heterogeneous Catalysis via Model Catalysts”
- 2003 **Symposium on Recent Advances in Epoxidation Catalysis**, Texas A&M University, College Station, TX. **Poster Presentation**: “Polarization Modulation Infrared Reflection Absorption Spectroscopy for Heterogeneous Catalytic Applications”
- 2003 **Texas Surface Science Round-Up 2003**, Roundtop, TX, **Oral Presentation**: “Investigation of the ordered overlayers in CO/Pd(111) and NO/Pd(111) adsorption systems at elevated pressures”
- 2003 225th ACS National Meeting, Division of Industrial Chemistry-Nanotechnology and the Environment, New Orleans, LA, **Oral Presentation**: “CO + NO Reaction: From Pd Single Crystals at Ultrahigh Vacuum to Pd Clusters Supported on SiO₂ Thin Films at Elevated Pressures”

CONFERENCE PRESENTATIONS (CONTINUED):

7. 2003 **63rd Physical Electronics Conference**, Cornell University, Ithaca, NY, *Oral Presentation*: “Bridging the gap between surface science and heterogeneous catalysis”
8. 2003 **18th North American Catalysis Society Meeting**, Cancun, Mexico, *Oral Presentation*: “A model catalyst study of the CO+NO reaction on Pd (111) at elevated pressures using in situ vibrational spectroscopy”
9. 2004 **Gordon Research Conference on Catalysis 2004**, New London, NH. *Poster Presentation*: “On the reversibility/irreversibility of the effects of pressure and temperature on the heterogeneous catalytic systems”
10. 2004 **AVS 51th International Symposium 2004**, Anaheim, CA. *Oral Presentation*: “Novel NO adsorption states at elevated pressures”
11. 2005 **229th ACS National Meeting**, San Diego, CA. Division of Colloid and Surface Chemistry, *Oral Presentation*: “Probing the morphological and electronic structure of epitaxially grown ultrathin film oxides via H₂O adsorption”.
12. 2005 **19th North American Catalysis Society Meeting**, Philadelphia, PA. *Oral Presentation*: “Interaction of NO₂ and H₂O with ordered Al₂O₃ ultra thin films grown on NiAl(100)”.
13. 2005 **AVS Pacific Northwest Division Meeting**, Portland, OR. *Oral Presentation*: “Model Catalyst Studies for a Molecular Understanding of NO_x-Storage-Reduction Catalysts”.
14. 2005 **AVS 52nd International Symposium**, Boston, MA. *Oral Presentation*: “NO_x Storage on BaO/θ-Al₂O₃/NiAl(100) Model Catalyst”
15. 2006 **International Congress on Operando Spectroscopy-II**, Toledo, Spain. *Poster Presentation*: “On the Reversibility/Irreversibility of the Effects of Pressure and Temperature on the Heterogeneous Catalytic Systems”
16. 2006 **The Seventh International Conference on Chemical Physics**, Egirdir, Turkey. *Oral Presentation*: “Model Catalyst Studies for NO_x Abatement”
17. 2006 **TOBB E.T. University**, Ankara, Turkey, *INVITED Oral Presentation*: “ Implications of Nanotechnology on Hydrogen Economy”
18. 2006 **Koç University**, İstanbul, Turkey, *INVITED Oral Presentation*: “ Bridging the Gap Between Surface Science and Catalysis”
19. 2006 **Hacetepe University**, Ankara, Turkey, *Oral Presentation*: “ Surface Science of Model Catalysts”
20. 2006 **Anatolian Workshop on Catalysis**, METU, Ankara, Turkey, *Oral Presentation*: “NO_x Storage Reduction Catalysts”
21. 2006 **Middle East Technical University**, Ankara, Turkey, *Oral Presentation*: “ Surface Science of Model Catalysts”
22. 2006 **Fritz Haber Institute der Max Planck Gesellschaft**, Berlin, Germany, *INVITED Oral Presentation*: “Understanding Catalysis via Model Systems”.
23. 2006 **AVS 53rd International Symposium**, San Francisco, CA. *Oral Presentation*: “NO₂ and H₂O adsorption on BaO/θ-Al₂O₃/NiAl(100)”
24. 2007 **Turkish Catalysis Society 1st National Congress**, Güzelyurt, Kıbrıs, *Oral Presentation*: “ Surface Science for a fundamental understanding of catalysis”
25. 2007 **Somer Symposium Series-I**, METU, Ankara, *INVITED Oral Presentation*: “Model Catalyst Studies on NO_x-Storage-Reduction Catalysts”
26. 2007 **Workshop on NO_x Abatement Catalysts**, METU, Ankara, *INVITED Oral Presentation*: “On the General Properties of NSR Catalysts”

CONFERENCE PRESENTATIONS (CONTINUED):

27. 2007 **20th North American Catalysis Society Meeting**, Houston, TX, *Poster Presentation*: “NO_x Reduction on a Transition Metal Free Alumina Catalyst Using Dimethylether”
28. 2007 **X. National Spectroscopy Conference**, IYTE, Izmir, Turkey, *INVITED Oral Presentation*: “A Novel in-situ Molecular Spectroscopy for Surface Reactions at Elevated Temperatures and Pressures”
29. 2007 **NanoTR-III**, Bilkent University, Ankara, Turkey, *INVITED Oral Presentation*: “Model Catalysts for Environmental Pollution Control”
30. 2008 **Swiss Federal Institute of Technology Zurich (ETH Zurich)**, Zurich, Switzerland, *INVITED Oral Presentation*: “In-situ vibrational spectroscopy at elevated pressures”
31. 2008 **235th ACS National Meeting**, New Orleans, LA. Division of Colloid and Surface Chemistry, *Poster Presentation*: “DME-NO₂ interactions on Alumina via in-situ FTIR spectroscopy”.
32. 2008 **Texas A&M University, Department of Chemistry**, College Station, TX, , *INVITED Oral Presentation*: “Model Catalyst Studies on NSR Systems”.
33. 2008 **8th Chemical Physics Conference, ITU, Istanbul**, *Oral Presentation*: “Model Catalyst Studies on NO_x Storage Systems”.
34. 2008 **National Catalysis Conference-2**, Palandöken, Erzurum *Oral Presentation*: “NO₂ and DME interactions on Alumina”.
35. 2009 **21st North American Catalysis Society Meeting**, San Francisco, CA. *Poster Presentation*: “Fe-Promoted NSR catalysts”.
36. 2009 **EUROPACAT IX** , Salamanca, Spain *Poster Presentation*: “Novel NO_x Storage System: TiO₂/BaO/Al₂O₃”.
37. 2009 **VIII. International Conference on Mechanisms of Catalytic Reactions**, Novosibirsk, Russia, *Oral Presentation*: “Novel Ternary Oxide NO_x Storage Materials ”.
38. 2009 **Queen’s University Chemistry Department**, Belfast, UK, *Oral Presentation*: “Surface Science Studies on Model Catalysts: From TWC’s to NSR”.
39. 2009 **ECASIA IX, European Conference on Applications of Surface and Interface Analysis**, Antalya, Turkey, *Oral Presentation*: “ Ti Promoted NO_x Storage Materials”.
40. 2009 **Gazi University, Chemical Engineering Department**, *INVITED Oral Presentation*: “Fundamental Catalytic Methods for Automotive Emission Control”.
41. 2009 **METU-TUD Research and Educational Network on Nanomaterials and Nanotechnology for Renewables**, Ankara, Turkey, *INVITED Oral Presentation*: “Mixed Ternary Oxide Systems as NO_x Storage Materials”.
42. 2010 **240th ACS National Meeting**, Boston, MA, Division of Environmental Chemistry, *Oral Presentation*: “Controlling the surface dispersion of BaO domains on NO_x storage materials via TiO₂ anchoring sites”.
43. 2010 **240th ACS National Meeting**, Boston, MA, Division of Colloid and Surface Chemistry, *Poster Presentation*: “Structural and NO_x Uptake Properties of Fe Promoted NO_x Storage Materials”.
44. 2010 **Ankara Chamber of Commerce Nanotechnology Workshop**, Ankara, turkey, *INVITED Oral Presentation*: “Catalysis for the Future Hydrogen Economy”.
45. 2010 **6th European Federation of Catalysis Societies (EFCATS) Summer School**, İzmir, Turkey, *Oral Presentation*: “Novel Trends in Diesel Emission Catalyst”.
46. 2010 **NANOTR-VI**, İzmir, Turkey, *INVITED Oral Presentation*: “Novel NO_x Storage Materials via Well-Controlled Surface Chemistry of Oxide Nano-domains”.

CONFERENCE PRESENTATIONS (CONTINUED):

47. 2010 **National Catalysis Conference –III**, Zonguldak, Turkey, **Oral Presentation:** “Influence of Surface FeO_x Domains On the NO_x Storage Mechanism of NSR Catalysts”.
48. 2010 **Synthesis and Characterization of Nanomaterials (SCAN 2010) Workshop**, Ankara, Turkey, **Oral Presentation:** “Novel Mixed Oxides With Tunable Surface Properties”.
49. 2010 **Turkish Academy of Sciences Annual Meeting**, Istanbul, Turkey, **Oral Presentation:** “Towards a Molecular Understanding of Automotive Catalysis Through Surface Science”.
50. 2010 **XI. Netherlands Catalysis Conference**, Noordwijkerhout, Netherlands, **Poster Presentation:** “BaO/TiO₂/γ-Al₂O₃ Ternary-Oxide Systems as NO_x Storage Materials”.
51. 2010 **NanoTR-VI**, İzmir, Turkey, **Oral Presentation:** “Novel NO_x Storage Materials via Well-Controlled Surface Chemistry of Oxide Nano-domains”
52. 2010 **Gazi University, Chemistry Departmental Seminars**, Ankara, Turkey, **Oral Presentation:** “Surface Chemistry for Automotive Emission Control Catalysis”
53. 2011 **22nd North American Catalysis Society Meeting**, Detroit, MI, **Poster Presentation:** “NO_x interaction with model BaO/Pt(111) NSR catalysts: Effect of BaO film thickness”
54. 2011 **Turkish Academy of Sciences Annual Meeting**, İzmir, Turkey, **Oral Presentation:** “Surface Science Studies Towards Understanding Catalytic Reactions at the Atomic Scale”.
55. 2011 **2011 Year of Chemistry Workshop**, Ankara, Turkey, **Oral Presentation:** “Chemistry on wheels: Automotive Catalysts”
56. 2011 **ENCAMP 2011 Workshop**, Cappadocia, Turkey, **Oral Presentation:** “NO_x Uptake and Storage Properties of BaO_x/Pt(111) Model Catalyst Surfaces”.
57. 2011 **EUROPACAT-X**, Glasgow, UK, **Poster Presentation:** “TiO₂ -promoted NO_x storage materials with enhanced sulfur tolerance”.
58. 2011 **EUROPACAT-X**, Glasgow, UK, **Oral Presentation:** “NO_x Uptake and Storage Properties of BaO_x/Pt(111) Model Catalyst: Influence of Ba Coverage, Surface Morphology and Stoichiometry”.
59. 2011 **Nanotechnology Days (Ankara University)**, Ankara, Turkey, **Oral Presentation:** “Catalytic properties of nanoparticles and the catalytic functionalities of surfaces”.
60. 2011 **NanoTR-VII**, Istanbul, Turkey, **Oral Presentation:** “NO_x Uptake and Storage Properties of BaO_x/Pt(111) Model Catalyst Surfaces”
61. 2011 **NanoTR-VII**, Istanbul, Turkey, **Oral Presentation:** “Controlling the Surface Dispersion of BaO Domains on NO_x Storage Materials via TiO₂ Anchoring Sites”
62. 2011 **NOEA 2011**, Zakopane, Poland, **Oral Presentation:** “Tunable Surface Chemistry of Ti-promoted NSR Catalysts”
63. 2011 **NOEA 2011**, Zakopane, Poland, **Poster Presentation:** “Interaction of NO₂ (g) with BaO_x / Pt (111) and BaO_x/ TiO₂/ Pt (111) Model Catalysts”
64. 2012 **243rdACS National Meeting**, San Diego, CA, Division of Colloid and Surface Chemistry, **Oral Presentation:** “UHV Surface Science studies on Ti-promoted NSR Catalysts”.
65. 2012 **Boğaziçi University Chemistry Department Seminar**, Istanbul, Turkey, **INVITED Oral Presentation:** “Towards a Molecular Understanding of Catalysis by Surface Science”.
66. 2012 **Koç University Faculty of Science Seminar**, Istanbul, Turkey, **INVITED Oral Presentation:** “Surface Sensitive Spectroscopic Studies to Understand Catalysis at the Molecular Level”.

CONFERENCE PRESENTATIONS (CONTINUED):

67. 2012 **METU Chemical Engineering Department Seminar**, Istanbul, Turkey. **INVITED Oral Presentation:** “Towards a Molecular Understanding of Catalysis by Surface Science”.
68. 2012 **National Catalysis Conference-4**, Kocaeli, Turkey **Oral Presentation:** “Ti-Promoted NSR Catalysts”.
69. 2012 **KEYNOTE LECTURE: IX International Conference “Mechanisms of Catalytic Reactions”**, St. Petersburg, Russia.
“Understanding Thermal and Photocatalytic Chemical Routes for NO_x Storage at the Molecular Level”.
70. 2012 **INVITED Research Lecture: General Motors Corporation R&D Labs**, Warren, MI.
“Towards a Molecular Level Understanding of Automotive Catalysis via Surface Science”
71. 2013 **KEYNOTE LECTURE: 44th IUPAC World Chemistry Congress**
“Understanding Heterogeneous Catalysis at the Molecular Level”
72. 2013 **INVITED Research Seminar, NCSR Demokritos Materials Institute**, Athens, Greece:
“Photocatalytic NO_x Oxidation and Storage (PhoNOS) Systems”
73. 2013 **KEYNOTE LECTURE: Advanced Materials World Congress (AMWC 2013), Çeşme, Turkey**
“Tailoring the Surface Properties of Mixed Oxide Nano-Domains for Catalysis”
74. 2013 **23rd North American Catalysis Society Meeting 2013. Oral Presentation:**
“Sulfur Tolerant Pt-Free Perovskite Materials as Next Generation DeNO_x Catalysts”
75. 2013 **INVITED LECTURE: NANOTR-9, Erzurum, Turkey**
“Understanding Catalysis at the Molecular Level: from Thermal Catalysis to Photocatalysis ”
76. 2013 **EUROPACAT-XI**, Lyon, France, **Oral Presentation:** “Next Generation Perovskite Based NO Oxidation Catalysts”.
77. 2013 **EUROPACAT-XI**, Lyon, France, **Oral Presentation:** “Photocatalytic NO_x Oxidation and Storage Systems”.
78. 2014 **INVITED LECTURE: Dalian Institute of Chemical Physics**, Dalian, China,
“Bridging the Gap Between Model Catalysts and Real World Catalysts via Chemical Physics ”
79. 2014 **INVITED LECTURE: International Conference on Catalysis**, Beijing, China,
“Next Generation Perovskite Catalysts for DeNO_x Applications ”
80. 2014 **INVITED LECTURE: ALBA Synchrotron Facility**, Barcelona, Spain,
“In-situ Characterization of Catalytic Surfaces by Electronic and Vibrational Spectroscopies
81. 2014 **INVITED LECTURE: CNR-ISMN**, Palermo, Italy,
“Sulfur Tolerant Pt-Free Perovskite Materials as Next Generation DeNO_x Catalysts”
82. 2014 **INVITED LECTURE: Baylor University**, Waco, TX
“Understanding Catalysis at the Molecular Level: From Photocatalysis to Thermocatalysis ”
83. 2014 **INVITED LECTURE: 30th European Conference on Surface Science**, Antalya, Turkey
“Surface Science Studies for Elucidating Catalytic Reaction Mechanisms at the Molecular Level”
84. 2014 **INVITED LECTURE: Turkish Crystallography Conference**, Diyarbakır, Turkey
“Low Energy Electron Diffraction: A Surface Sensitive Characterization Tool”
85. 2014 **INVITED LECTURE: Gazi University Chemistry Department Seminar**, Ankara, Turkey,
“Understanding Catalysis via Surface Science ”
86. 2014 **INVITED LECTURE: National Catalysis Conference-V**, Adana, Turkey,
“Mixed-Perovskite Catalysts for Superior NO_x Storage and Reduction”
87. 2014 **INVITED LECTURE: University of Erlangen**, Nürnberg, Germany
“Model Catalysts for Elucidating Surface Reaction Mechanisms at the Molecular Level”

CONFERENCE PRESENTATIONS (CONTINUED):

88. 2014 **INVITED LECTURE: MOLCHEM Conference, Istanbul Technical University, Istanbul, Turkey.**
“Model Catalysts for Elucidating Surface Reaction Mechanisms at the Molecular Level”
89. 2014 **ICTF 16: International Conference on Thin Films, Dubrovnik, Croatia. Oral Presentation:**
“Thin Films for Surface Science and Catalysis”
90. 2014 **American Chemical Society National Meeting, San Francisco, CA, Oral Presentation:**
“Palladium Doped Perovskite-Based NO Oxidation Catalysts: The Role of Pd and B-sites for NO_x/SO_x Adsorption”
91. 2015 **INVITED LECTURE: TÜBİTAK-MAM GAZTEM Workshop, İzmir, Turkey.**
“Surface Sensitive Characterization Tools for Catalysis”
92. 2015 **EUROPACAT-XII, Kazan, Russia, Oral Presentation:** “Bio-inspired “Buckyball-shaped” Photocatalytic Architectures”.
93. 2015 **EUROPACAT-XII, Kazan, Russia, Oral Presentation:** “Going Heterogeneous in the Additive-Free Hydrogen Production from Formic Acid”.
94. 2015 **INVITED LECTURE: PhD School for Young Scientists, Kazan, Russia, “Exhaust Emission Control Catalysts”.**
95. 2015 **INVITED LECTURE: National Chemistry Conference, Canakkale, Turkey,**
“Model Catalysts for Mechanisms of Catalytic Reactions”.
96. 2015 **INVITED LECTURE: KUTEM Seminar Series, Koç University, Istanbul, Turkey.**
“Understanding Catalytic Materials at the Molecular Level”.
97. 2016 **INVITED LECTURE: Deutsches Elektronen Synchrotron (DESY), Hamburg, Germany.**
“Reaction Mechanisms of Thermal and Photocatalytic Reactions via Surface Science”.
98. 2016 **INVITED LECTURE: Bulgarian Academy of Sciences, Institute of Inorganic Chemistry, Sofia, Bulgaria.**
“Model Catalysts for Elucidating Surface Reaction Mechanisms at the Molecular Level”
99. 2016 **INVITED LECTURE: International Conference on Catalysis 2016, Beijing, China.**
“Heterogeneous Catalysts for Environmental Protection and Environmentally Friendly Energy Conversion Systems”
100. 2016 **INVITED LECTURE: Technical University of Darmstadt, Chemistry Department, 2016, Darmstadt, Germany.**
“Heterogeneous Catalysts for Environmental Protection and Environmentally Friendly Energy Conversion Systems”
101. 2016 **INVITED LECTURE: 16th International Congress on Catalysis (ICC) , 2016, Beijing, China.**
“Heterogeneous Catalysts for Environmental Protection and Environmentally Friendly Energy Conversion Systems”
102. 2016 **INVITED LECTURE: 16th International Congress on Catalysis (ICC) , 2016, Beijing, China.**
“Heterogeneous Catalysts for Environmental Protection and Environmentally Friendly Energy Conversion Systems”
103. 2017 **INVITED LECTURE: Bilkent University Chemistry Discussions (BUCD), 2017, Ankara, Turkey.**
“Catalysis for Energy & Environment”
104. 2017 **INVITED LECTURE: National Inorganic Chemistry Conference, 2017, Burdur, Turkey.**
“Surface-sensitive Characterization Methods for Understanding Catalysis at the Atomic Level”
105. 2017 **INVITED LECTURE: IWANN Conference 2017, Bilkent, Ankara, Turkey.**
“Environmentally Friendly and Sustainable Catalysis”
106. 2017 **25th North American Catalysis Society (NAM) Meeting, 2017, Denver USA, Oral Presentation:** .
“Understanding Exothermic Catalytic Decomposition of Ionic Liquids Under Anaerobic Conditions: New Structure Functionality Relationships”
107. 2017 **SESAME Synchrotron Stakeholders Meeting, 2017, Amman, Jordan, Oral Presentation:** .
“Understanding Exothermic Catalytic Decomposition of Ionic Liquids Under Anaerobic Conditions: New Structure Functionality Relationships”

CONFERENCE PRESENTATIONS (CONTINUED):

108. 2017 **RESEARCH TRAINING FOR TÜPRAŞ R&D STAFF, 2017**, Kocaeli, Turkey
“Fundamentals of Vibrational Spectroscopy and Mass Spectroscopy and their Applications in Heterogeneous Catalysis”
109. 2017 **INVITED LECTURE: Weizmann Institute, Israel-Turkey workshop on NANOSCIENCE & NANOTECHNOLOGY 2017, Rehovot, Israel.**
“Understanding Catalytic Materials at the Molecular Level: From Thermal Chemistry to Photochemistry”
110. 2017 **INVITED LECTURE: Why Science is relevant for Science?**, Bilkent, Ankara, Turkey.
“There is ONE Science !”
111. 2018 **INVITED LECTURE: Koç University Chemistry Department Seminar, İstanbul, Turkey.**
“Catalytic Nanomaterials for Environment & Renewable Energy”
112. 2018 **INVITED LECTURE: DESY-TARLA-TAEK-TUBITAK Workshop, Brussels, Belgium.**
“Synchrotron User Activities and Nanotechnology Research in Turkey”
113. 2018 **INVITED LECTURE: TAEK Workshop on Turkish Accelerator Light Source Users, TAEK, Ankara, Turkey.**
“SNOM NanoIR Microscopy in TARLA and SESAME Activities of Turkey”
114. 2018 **INVITED LECTURE: Chemical Physics Conference-XII, Safranbolu, Turkey.**
“A Tale of Two Catalysts”
115. 2018 **National Catalysis Conference-7, Denizli Turkey, Turkey, Oral Presentation.**
“Nature of Oxygen Species On Au(111) And Ag(111) Model Catalysts And Their Role In O-H, C-H, C-C, N-H Bond Activation”
116. 2018 **INVITED LECTURE, SESAME SAC Meeting, Amman, Jordan.**
“TAEK-TARLA-SESAME Soft X-ray End Station Project”
117. 2019 **INVITED LECTURE: American Chemical Society National Meeting, Orlando, FL, USA.**
“Dry Reforming of Glycerol Over Ceria, Zirconia and Alumina-Zirconia-Titania supported Rh, Co, Ni Catalysts: New Insights on Catalyst Activity and Stability”
118. 2019 **EUROPACAT-XIII, Aachen, Germany. Oral Presentation.**
“CdTe Quantum Dot-Functionalized P25 Titania Composite with Enhanced Photocatalytic NO₂ Storage Selectivity under UV and VIS Irradiation”
119. 2019 **26th North American Catalysis Society Meeting, Chicago, IL, USA. Oral Presentation.**
“CdTe Quantum Dot-Functionalized P25 Titania Composite with Enhanced Photocatalytic NO₂ Storage Selectivity under UV and VIS Irradiation”
120. 2019 **INVITED LECTURE: 5th Anatolian School of Catalysis, İzmir, Turkey.**
“Vibrational Imaging of Nanomaterial Surfaces with Scanning Nearfield Optical Microscopy”
121. 2019 **INVITED LECTURE: NanoTR-15 Conference, Antalya, Turkey.**
“Molecular-level Origins of Life and Death of Two Catalysts”

ORGANIZED SCIENTIFIC MEETINGS:

- 2007 **1st National Catalysis Congress, Güzelyurt, Cyprus**
(**Organization Committee Member**) <http://www.metucenter.metu.edu.tr/ncc1/>
- 2008 **2nd National Catalysis Congress, Palandoken, Erzurum, Turkey**
(**Co-Chair**) <http://www.metucenter.metu.edu.tr/ncc2/>
- 2009 **ECASIA IX, European Conference on Applications of Surface and Interface Analysis, Antalya, Turkey**
(**Scientific Committee Member**) <http://www.arber.com.tr/ecasia09.org/>
- 2010 **European Federation of Catalysis Societies (EFCATS) 6th Summer School, Izmir, Turkey,**
(**Conference Secretary**) <http://www.arber.com.tr/catalysisschool.org>

ORGANIZED SCIENTIFIC MEETINGS (continued):

- 2010 **Synthesis and Characterization of Nanomaterials (SCAN 2010) Workshop and School**, Ankara, Turkey
(Co-Chair) <http://www.fen.bilkent.edu.tr/~regpot/scan2010/>
- 2012 **4th National Catalysis Congress**, Kocaeli, Turkey
(Chair) <http://www.arber.com.tr/ncc4.org/>
- 2016 **6th National Catalysis Congress**, Bursa, Turkey
(Organization Committee Member) <http://ncc6.btu.edu.tr/index.php>
- 2016 **DESY-XFEL-Turkey Workshop, Deutsches Elektronen Synchrotron , Hamburg, Germany**
(Co-Chair) <http://kib.desy.de/bilim>
- 2016 **Bilkent Chemistry Discussions (BCD) Workshop for Graduate Students**, Bilkent, Ankara, Turkey
(Co-Chair) <http://www.fen.bilkent.edu.tr/~cvchem/chemdisc.html>
- 2018 **TAEK Workshop on Turkish Accelerator Light Source Users, TAEK, Ankara, Turkey**
(Chair)

BOOK CHAPTERS:

- 2005 “*Nanotechnology and the Environment: Applications and Implications*”
“A Vibrational Spectroscopic Study of the CO + NO Reaction: From Pd Single Crystals at Ultrahigh Vacuum to Pd Clusters Supported on SiO₂ Thin Films at elevated Pressures” **Ozensoy, E.**; Goodman, D. W.
Edited by B. Karn, T. Masciangioli, W. Zhang, V. Colvin and P. Alivisatos
Oxford University Press, New York, NY.

PEER REVIEWING FOR SCIENTIFIC JOURNALS:

- 2003-present Journal of the American Chemical Society
2003-present Journal of Physical Chemistry B
2003-present Catalysis Letters
2004-present Journal of Electron Spectroscopy and Related Phenomena
2005-present ChemPhysChem
2005-present Langmuir
2005-present Applied Catalysis B: Environmental
2007-present Journal of Materials Chemistry
2007-present Journal of Physical Chemistry C
2007-present European Journal of Physical Chemistry B
2007-present Physical Chemistry Chemical Physics
2007-present Modern Physics Letters
2007-present Journal of Catalysis
2008-present Industry and Engineering Chemistry Research
2010-present Applied Surface Science
2010-present Catalysis Today
2010-present Surface and Interface Analysis
2011-present Catalysis Communications
2011-present Topics in Catalysis
2012-present Chemical Reviews

AFFILIATIONS:

- 2006-present Turkish Catalysis Society (TCS) (Secretary and *Founding Member*)
- 1999-present American Chemical Society (ACS) (Member)
- 2003-present American Vacuum Society (AVS) (Member)
- 2003-present North American Catalysis Society (NACS) (Member)

POPULAR SCIENCE ARTICLES:

- 2006 *“Major Challenges of Hydrogen Energy Technology and What Nanotechnology Can Offer”*
Ozensoy, E.; Tübitak Bilim ve Teknik Dergisi, November, 2006
- 2006 *“Mysterious Surface Chemistry of Nano-structures and the Catalytic Behavior of Nanoparticles”*
Ozensoy, E.; Tübitak Bilim ve Teknik Dergisi, December, 2006
- 2007 *“Catalytic Nanoparticles for Environment ”*
Ozensoy, E.; Bilim ve Ütopya Dergisi, February, 2007

DISSERTATIONS SUPERVISED:

1. 2009 **Emine Kayhan, Master of Science in Chemistry**, Dissertation Title *“Structure and NO_x Uptake Properties Of Fe-Ba/Al₂O₃ as a Model NO_x Storage Material”*.
2. 2010 **Göksu Seda Şentürk, Master of Science in Chemistry**, Dissertation Title *“Finding An Optimum Surface Chemistry For BaO/TiO₂/Al₂O₃ Systems as NO_x Storage Materials”*
3. 2011 **Emre Emmez, Master of Science in Chemistry**, Dissertation Title *“BaO_x/Pt(111) and BaO_x/TiO₂/Pt(111) Model Catalysts for Understanding Model NO_x Storage Reduction (NSR) Catalysis at the Molecular Level”*.
4. 2011 **Emrah Parmak, Master of Science in Chemistry**, Dissertation Title *“Sulfur Tolerance of Fe-Promoted BaO/Al₂O₃ Systems as NO_x Storage Materials”*
5. 2011 **Zafer Say, Master of Science in Chemistry**, Dissertation Title *“Ceria Promoted NO_x Storage Reduction Materials”*.
6. 2012 **Ash M. Soylu, Master of Science in Chemistry**, Dissertation Title *“Photocatalytic NO_x Oxidation and Storage for Air Purification”*.
7. 2013 **Merve Doğaç, Master of Science in Chemistry**, Dissertation Title *“Pt-Free Perovskite Based Oxidation Catalysts For Automotive Applications”*.
8. 2014 **Pelin Altay, Master of Science in Chemistry**, Dissertation Title *“Electronically Modified Photocatalytic NO_x Oxidation and Storage Catalysts for Visible Excitation”*.
9. 2014 **Syed A. A. Shah, Master of Science in Chemistry**, Dissertation Title *“Temperature Programmed Desorption (TPD) Studies on Adsorption of Alcohols, Ethers, Aldehydes, Ketones and Esters on the Au(111) Single Crystal Model Catalyst Surface”*.
10. 2015 **Kerem E. Ercan, Master of Science in Chemistry**, Dissertation Title *“Novel Hybrid Perovskite Catalysts for De-NO_x Applications”*.
11. 2015 **Zafer Say, PhD. in Chemistry**, Dissertation Title *“Investigation Of NO₂ And SO₂ Adsorption/Desorption Properties of Advanced Ternary And Quaternary Mixed Oxides For DeNox Catalysis”*.
12. 2016 **Zehra Aybegüm Samast, Master of Science in Chemistry**, Dissertation Title *“Utilization Of Reducible Mixed Metal Oxides As Promoters For The Enhancement Of Sulfur Regeneration In NSR Catalysts”*.
13. 2017 **Merve Tohumeken, Master of Science in Chemistry**, Dissertation Title *“Designing Novel Denox Catalysts With A Wide Thermal Operational Window”*.
14. 2017 **Mustafa Karatok, PhD. in Chemistry**, Dissertation Title *“Nature of Oxygen Species On Au(111) and Ag(111) Model Catalysts and Their Role In O-H, C-H, C-C, N-H Bond Activation”*.

DISSERTATIONS SUPERVISED (Continued):

15. 2017 **Elif Perşembe, Master of Science in Chemistry**, Dissertation Title “*Trimetallic Heterogeneous Catalyst For Dehydrogenation of Formic Acid With Enhanced CO Tolerance*”.
16. 2017 **Mustafa Çağlayan, Master of Science in Chemistry**, Dissertation Title “*Enhanced Photocatalytic NOx Oxidation-Storage Over Titania-Metal Oxide Physical Mixtures Under UV And Visible Light*”.
17. 2018 **Merve Balcı, Master of Science in Chemistry**, Dissertation Title “*Quantum Dot Functionalized Titania Systems For Photocatalytic Oxidative Nox Storage*”.
18. 2020 **Kerem Emre Ercan, Ph.D. in Chemistry**, Dissertation Title “*Precious Metal-Free Ceria Based DeNOx Catalysts*” 2015-2020 (ongoing).
19. 2020 **Merve Kurt, Ph.D. in Chemistry**, Dissertation Title “*Novel Heterogeneous Catalysts for Ionic Liquid Monopropellants*” 2015-2020 (ongoing).
20. 2024 **Gökberk Kazancı, Ph.D. in Chemistry**, Dissertation Title “*Two Dimensional Photocatalytic Architectures for NOx and CO2 Capture*”. 2019-2024 (ongoing).
21. 2020 **Elnaz Ebrahimi, Master of Science in Chemistry**, Dissertation Title “*CdSeTe/CdSe Core-Crown Quantum Nanoplatelet Enhanced Titania Photocatalysts*”. 2018-2020 (ongoing).
22. 2020 **Bartu Karakurt, Master of Science in Chemistry**, Dissertation Title “*Model Catalyst Studies on Enhanced Selectivity of Formic Acid Dehydrogenation on Pd(111) with Bronsted Bases*”. 2018-2020 (ongoing).
23. 2020 **Abel Tetteh Sika-Nartey, Master of Science in Chemistry**, Dissertation Title “*Co and Cu-based CO-Oxidation Catalysts*”. 2018-2020 (ongoing).
24. 2021 **Salimcan Akyürek, Master of Science in Chemistry**, Dissertation Title “*Vibrational Spectroscopic Imaging of Catalytic Poisoning at the Nanometer Scale*”. 2019-2021 (ongoing).
25. 2021 **Seyedsaber Hosseini, Master of Science in Chemistry**, Dissertation Title “*SNOM-IR Studies on Ionic Liquid Modified 2D Precious Metal Model Catalysts*”. 2019-2021 (ongoing).

SUPERVISED RESEARCH PROJECTS:

1. 2006-2011 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 105Y260**
2. 2007-2010 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 107Y115**
3. 2008 TUBITAK BİDEB SCIENTIFIC CONFERENCE SUPPORT PROJECT: **Principal Investigator**
4. 2009-2011 TUBITAK-RFBR (RUSSIA) BILATERAL RESEARCH PROJECT: **Principal Investigator 108M379**
5. 2011-2013 TUBITAK-GSRT (GREECE) BILATERAL RESEARCH PROJECT: **Principal Investigator 109M713**
6. 2011-2013 GENERAL MOTORS COMPANY RESEARCH PROJECT: **Principal Investigator**
7. 2012-2014 TUBITAK-RFBR (RUSSIA) BILATERAL RESEARCH PROJECT: **Principal Investigator 111M780**
8. 2012-2015 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 112T589**
9. 2014-2015 TUBITAK-NSF (USA) RESEARCH PROJECT: **Principal Investigator 113Z543**
10. 2014-2015 TUBITAK BİDEB INTERNATIONAL POSTDOCTORAL RESEARCHER PROJECT: **Principal Investigator**
11. 2014-2016 TUBITAK-CNR (ITALY) RESEARCH PROJECT: **Principal Investigator 213M585**
12. 2015 TUBITAK 1002 RESEARCH PROJECT: **Principal Investigator 115Z135**

SUPERVISED RESEARCH PROJECTS (continued):

13. 2015-2017 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 115Z552**
14. 2016-2016 ROKETSAN COMPANY RESEARCH PROJECT: **Principal Investigator**
15. 2016-2018 TUBITAK-BAS (BULGARIA) RESEARCH PROJECT: **Principal Investigator 215M170**
16. 2017-2019 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 116M435**
17. 2017-2019 ROKETSAN COMPANY RESEARCH PROJECT: **Principal Investigator**
18. 2019-2022 TUBITAK 1001 RESEARCH PROJECT: **Principal Investigator 119M058**
19. 2019-2021 TUBITAK 2236 RESEARCH PROJECT: **Principal Investigator 119C014**

TEACHING EXPERIENCE:

- 2001 Chem 326: Physical Chemistry Laboratory (Texas A&M University)
(Instructed various physical/electro-chemical experiments to junior/senior level chemistry students)
- 2000-2001 Chem 101: Fundamentals in Chemistry I (Texas A&M University)
(Instructed first year chemistry experiments/recitation and problem solving sessions to freshmen and sophomores.)
- 2006 Chem 545: Nanotechnology and Its Applications (Washington State University)
(Instructed by multiple instructors. For senior/graduate level chemistry, physics, biology, material science, chemical engineering and electronic engineering students)
- 2006- Chem 102: General Chemistry II (Bilkent University)
(Instructed first year chemistry lectures, to freshmen and sophomores.)
- 2006- Chem 101: General Chemistry I (Bilkent University)
(Instructed first year chemistry lectures to freshmen and sophomores.)
- 2006-2010 Chem 100: Principles of Chemistry I (Bilkent University)
(Instructed first year chemistry lectures to freshmen and sophomores.)
- 2008 - CHEM 551: Special Topics in Physical Chemistry (Bilkent University)
(Instructed M.S. and Ph. D. students)
- 2009- CHEM 323: Physical Chemistry I (Bilkent University)
(Instructed Junior and Senior undergraduate students)
- 2011- CHEM 324: Physical Chemistry II (Bilkent University)
(Instructed Junior and Senior undergraduate students)
- 2014- TUBITAK High School Chemistry Olympics National Team Lecturer
- 2014- GE 500 Graduate Education Lecturer: "Excellence in Teaching"
(Instructed M.S. and Ph. D. students)
- 2019- Chem 521 Surface Chemistry (Bilkent University)
(Instructed M.S. and Ph. D. students)

INTERNSHIPS:

- 1998 DYO Paint and Dye Manufacturing Inc. , Product Development and Quality Control Labs. , Izmir, Turkey

EXTRACURRICULAR ACTIVITIES:

- 2006-2007** Academic Consultant and project supervisor for the “Hidromobilkent” undergraduate project team to construct a **hydrogen-fueled passenger vehicle** for the “**Hidromobil 2007**” competition organized by the Scientific and Technical Research Council of Turkey (TUBITAK)
- 2012** “**2012 Bilkent Chemistry Summer Camp for High School Students**”. Organized a 3-day workshop for high school students involving theoretical lectures, lab demonstrations and hands-on experiments (c.a. 40 attendees)
Related experiment videos can be found at: <https://www.youtube.com/playlist?list=PL2E84225BE99D83BD>
- 2016** “**2016 Bilkent Chemistry Days for High School Students: Chemistry in Action !**”. Organized a 2-day workshop for high school students involving theoretical lectures, lab demonstrations and hands-on experiments (c.a. 30 attendees)