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Post-Doctoral position of chemistry Bilkent University, Department of Chemistry,

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SCIENTIFIC BACKGROUND:

2018 - Present Bilkent University, Ankara, Turkey. Post-Doc of Chemistry Department of Chemistry

2012 - 2019 Atatürk University, Erzurum, Turkey. PhD student of Physics Department of Physics, **Investigation of Growth Dynamics of 2-Dimensional WS₂ Layers by Sputtering Method**

2008 – 2011 Erciyes University, Kayseri, Turkey. Master Student of Physics Department of Physics, **Dependency of microstructure and microhardness on solidification processing parameters for directional solidified Pb-Bi alloys**

2004 – 2008 Selçuk University, Konya, Turkey. Bachelor of Science, Department of Physics

ACADEMIC PUBLICATIONS:

1. Bartu Karakurt, **Yusuf Koçak**, Emrah Ozensoy: *Enhancement of Formic Acid Dehydrogenation Selectivity of Pd(111) Single Crystal Model Catalyst Surface via Bronsted Bases*. **The Journal of Physical Chemistry C** 11/2019, 123, 47, 28777-28788, DOI:10.1021/acs.jpcc.9b08707
2. Mustafa Çağlayan, Muhammad Irfan, Kerem Emre Ercan, **Yusuf Kocak**, Emrah Ozensoy: *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*. **Applied Catalysis B: Environmental** 09/2019;, DOI:10.1016/j.apcatb.2019.118227
3. Ilkay Demir, **Yusuf Koçak**, A. Emre Kasapoğlu, Manijeh Razeghi, Emre Gür, Sezai Elagoz: *AlGaIn/AlIn MOVPE heteroepitaxy: pulsed co-doping SiH₄ and TMIn*. **Semiconductor Science and Technology** 06/2019; 34(7)., DOI:10.1088/1361-6641/ab2782
4. Selin Bac, Zafer Say, **Yusuf Kocak**, Kerem E. Ercan, Messaoud Harfouche, Emrah Ozensoy, Ahmet K. Avci: *Exceptionally active and stable catalysts for CO₂ reforming of glycerol to syngas*. **Applied Catalysis B: Environmental** 06/2019; 256:117808., DOI:10.1016/j.apcatb.2019.117808
5. Muhammad Irfan, Melike Sevim, **Yusuf Koçak**, Merve Balci, Önder Metin, Emrah Ozensoy: *Enhanced Photocatalytic NO_x Oxidation and Storage Under Visible-Light Irradiation by Anchoring Fe₃O₄ Nanoparticles on Mesoporous Graphitic Carbon Nitride (mpg-C₃N₄)*. **Applied Catalysis B: Environmental** 02/2019; 249., DOI:10.1016/j.apcatb.2019.02.067
6. Melek Fidan, Demet İskenderoğlu, **Yusuf Koçak**, Zineb Benzait, Emre Gür: *Single, co-doping and triple doping Fe element in the ZnO crystal matrices*. **Materials Research Express** 01/2019; 6(4):046410., DOI:10.1088/2053-1591/aafae
7. Merve Balci Leinen, Didem Dede, Munir Ullah Khan, Mustafa Çağlayan, **Yusuf Koçak**, Hilmi Volkan Demir, Emrah Ozensoy: *CdTe Quantum Dot-Functionalized P25 Titania Composite with Enhanced Photocatalytic NO₂ Storage Selectivity under UV and VIS Irradiation*. **ACS Applied Materials & Interfaces** 12/2018; 11(1)., DOI:10.1021/acsami.8b18036
8. Bayram Kilic, Sunay Turkdogan, Aykut Astam, Sümeysa Seniha Baran, Mansur Asgin, Emre Gur, **Yusuf Kocak**: *Interfacial engineering of CuO nanorod/ZnO nanowire hybrid nanostructure photoanode in dye-sensitized solar cell*. **Journal of Nanoparticle Research** 01/2018; 20(1):11., DOI:10.1007/s11051-017-4103-4

9. **Yusuf Koçak**, Emre Gür: *Magnetron sputtered WS₂; optical and structural analysis*. **Journal of Physics Conference Series** 04/2016; 707(1)., DOI:10.1088/1742-6596/707/1/012028
10. **Y. Koçak**, S. Engin, U. Büyük, N. Maraşlı: *The influence of the growth rate on the eutectic spacings, undercoolings and microhardness of directional solidified bismuth–lead eutectic alloy*. **Current Applied Physics** 05/2013; 13(3):587–593., DOI:10.1016/j.cap.2012.10.005

Book Chapters

Yusuf Koçak, Emre GÜR: *Raman Spektroskopisi; Biyolojik Sistemlere Uygulamaları*. 12/2017;

CONFERENCE PRESENTATIONS

- North American Catalysis Society Meeting, 2019, CdTe Quantum Dot-Functionalized P25 Titania Composite with Enhanced Photocatalytic NO₂ Storage Selectivity Under UV and VIS Irradiation Merve Balci Leinen, Didem Dede, Munir Ullah Khan, Mustafa Çağlayan, Yusuf Koçak Hilmi Volkan Demir and Emrah Ozensoy
- IPCAP 2016, Erzurum, Turkey (**Oral presentation**); Magnetron Sputtered WS₂; Optical and Structural Analysis Y. Koçak, Y Akaltun and Emre Gür
- YMF 2016 (Condensed Matter Physics) İzmir, Turkey, (**Poster presentation**), Surface, Interfacial and Optical Properties of Two-Dimensional WS₂ Thin Films
- NANOTR12 12th Gebze, Turkey, (**Oral presentation**) International Nanoscience and Nanotechnology Conference Magnetron Sputtered WS₂ Thin Films; surface, interface and optical analysis Yusuf Koçak and Emre Gür
- Trends in Nanotechnology International Conference (TNT2017), Dresden, Germany, (**Oral presentation**) Magnetron Sputtered WS₂ Thin Films, Emre Gür Yusuf Koçak
- Trends in Nanotechnology International Conference (TNT2017), Dresden, Germany, (**Poster presentation**) CuO nanoparticle composite structures with carbonnanotubes Yusuf KOÇAK Ahmet Özmen Mehmet ERTUĞRUL Emre GÜR
- International Conference on Advanced Engineering Technologies, (ICADET'17), Bayburt, Turkey, (Oral presentation) Structural Characterization of Cu / MWCNT Composites, Yusuf KOÇAK, Ahmet ÖZMEN, Emre GÜR and Mehmet ERTUĞRUL
- 13th Nanoscience & Nanotechnology Conference, (NANOTR 13), Antalya, Turkey, (**Poster presentation**) Growth dynamics of WS₂ by RF magnetron sputtering, Yusuf Koçak, Emre Gür,
- 13th Nanoscience & Nanotechnology Conference, (NANOTR 13), Antalya, Turkey, (**Poster presentation**) MBE grown GaN Nanowires on Si (111) Substrate; Temperature Dependence, Ahmet Emre Kasapoğlu, Yusuf Koçak, Emre Gür, Pınar Doğan,

RESEARCH PROJECTS:

1. **2008-2010** SCIENTIFIC RESEARCH PROJECT (BAP); **Investigator**
2. **2014-2017** SCIENTIFIC RESEARCH PROJECT; **Investigator**, 2015/343
3. **2016-2018** TUBITAK 1001 RESEARCH PROJECT; **Investigator**, 315M239