

PERSONAL INFORMATION

Amer Zaffar



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Sex : Male | Date of birth 05/01/1992 | Nationality | Pakistani

EDUCATION AND TRAINING

2016-2020 **Master of Science (MS) in Chemical Engineering**

Institution National University of Sciences and Technology Islamabad, Pakistan.

CGPA 3.15 /4.0

Thesis Title **Development of Indigenous Coal fly ash Derived cobalt based catalyst for partial oxidation of methane**

Thesis Abstract Zeolite-4A was synthesized from waste coal fly ash. The prepared zeolite was then impregnated with different Co loadings and was analyzed using X-ray Diffraction (XRD), Scanning Electron Microscope (SEM), Energy Dispersive X-ray (EDX), and Thermogravimetric Analysis (TGA). The catalytic activity tests of all the samples were performed. The stability test of the best performing catalyst was carried out for 24 h. Co/Zeolite-4A possess good catalytic activity for the Partial Oxidation of Methane achieving a maximum of ~68% average CH₄ conversion and a maximum of H₂ and CO selectivity average of ~56% and ~52%, respectively. The TOS test revealed that the catalyst possesses a good catalytic stability as CH₄ conversion of >50% can be seen even after 24 h. of continuous operation.

2010-2015 **Bachelor of Science (Bsc) in Chemical Engineering and Technology**

Institution University of the Punjab Lahore, Pakistan.

CGPA 2.96 /4.0

Thesis Title **Co-firing of coal and biomass**

Thesis Abstract Lakhra coal (District Dadu, Pakistan) was used as a coal sample and biomasses (Corn cob, rice husk, wood) were used as sample obtained from for experimental study. Moisture was determined according to ASTM standard D3173-03, Ash was determined according to ASTM standard D3174-04, and volatile matter was determined according to ASTM standard D 3175-02 (ASTM Standards, 2004)

Peer-Reviewed Publication

- A Zaffar, BA Khan, AH Khoja, 2021. Synthesis of ash derived Co/zeolite catalyst for hydrogen rich syngas production via partial oxidation of methane. Bulletin of Chemical Reaction Engineering & Catalysis 16 (3), 507-516
DOI: <https://doi.org/10.9767/bcrec.16.3.10614.507-516>
- A Zaffar, BA Khan, AH Khoja, MT Mehran, SR Naqvi, M Ali Sustainable Energy & Catalysis (ICSEC 2021)
Conference presentation

Work Experience

Designation Trainee Engineer
Timeline 10/2017- 10/2018
Organization Oil and Gas development Company Limited
Jhand Attock, Pakistan.

Job Description Control room operations , working on DCS system. Operations & monitoring the processes. Working on the processes at the site, like crude separation, gas purification methods sweetening of sour gas, absorption ,stripping,dehydration and refrigeration unit. The control of temperature , pressure, level and concentration. Involvement in HAZARD and safety procedure. Environmental compliance, monitoring & reporting. Worked at Gas turbine.

Related Skills

- SEM, XRD , BET , FTIR and TGA

Awards

- Chief Minister of Punjab Laptop
 - All Pakistan Inter school debate competition
 - Kangaroo mathematics Test Gold medalist
 - Intra School debate and declamation winner
 - Best student in School
 - Head boy in School
 - Class president in Bsc
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Languages

- Punjabi (Mother language),
 - Urdu (National language),
 - English (Advanced) TOEFL
 - German (Intermediate) B1
 - Italian (Beginner)
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References

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