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Title: Gasification of solid fuels and production of syngas using the circulating fluidized bed technology

Abstract:

This presentation will mainly focus on the development of the clean energy conversion laboratory located at the School of Engineering and Digital Sciences of Nazarbayev University and briefly discuss the information on past and current projects. Further utilization of coal resources for energy recovery without CO₂ capture is getting less attractive option, indicating that new solution should be presented soon in the context of Kazakhstan. Having in mind that still 70% of energy in Kazakhstan is generated by coal fired power plants, new technologies should be implemented towards lowering CO₂ emissions into the environment. Therefore, new processes such as gasification with CO₂ separation will be the main focus. The presentation will include available facilities and the projects that were implemented in the recent years at Nazarbayev University.