World Academy of Science, Engineering and Technology
International Journal of Environmental and Ecological Engineering
Vol:9, No:03, 2015

Carbon Supported Cu and TiO2 Catalysts Applied for Ozone Decomposition

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Abstract : In the recent article, a comparison was made between Cu and TiO2 supported catalysts on activated carbon for ozone decomposition reaction. The activated carbon support in the case of TiO2/AC sample was prepared by physicochemical pyrolysis and for Cu/AC samples the supports are chemically modified carbons. The prepared catalysts were synthesized by impregnation method. The samples were annealed in two different regimes-in air and under vacuum. To examine adsorption efficiency of the samples BET method was used. All investigated catalysts supported on chemically modified carbons have higher specific surface area compared to the specific surface area of TiO2 supported catalysts, varying in the range 590÷620 m2/g. The method of synthesis of the precursors had influenced catalytic activity.

Keywords : activated carbon, adsorption, copper, ozone decomposition, TiO2
Conference Title : ICSSE 2015 : International Conference on Sustainable Systems and Environment
Conference Location : Prague, Czechia
Conference Dates : March 23-24, 2015