Use of a new developed micro-pulse-like reactor for the kinetic catalytic measurements of CO, CH, NO, and NOx removal from car exhaust gases on the catalyst (BZ Ag2O, Al2O3-MoO3-Ag2O)

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Researches on car exhaust gas pollutants require accurate information particularly those of kinetics of catalytic reactions concentrating de-NO, de-NOx and de-CH, that take place in catalytic converters connected directly with the engine of the motor car. Unstable velocity of out coming flow gas from car exhaust of the main impediment to be overcome in order to determine the desired kinetic parameters. Therefore, we have constructed a laboratory pilot plant, data obtained by means of which have been proved to be in accord with the kinetic equation for the pulse flow catalytic reactions. This pilot plant has been repeatedly used and determine the kinetic parameters and catalytic activity for new 11 catalysts prepared by us from metal oxides supported by matrix of Syrian natural zeolite, Jordanian natural zeolite, and Syrian Bentonite. The DTA diagrams indicated characteristic indothermal and exothermal effects. The adsorption- desorption of N2 measurements were carried out at -196°C. In addition to FTIR studies.

Biography

Y Walid Bizreh harvested twelve different scientific patents relating to the diverse fields of Chemistry; four of which were presented, examined and passed successfully as novelty by WIPO; WIPO is the World Intellectual Property Organization. He has authored eight books that are core curriculum in different universities in the Mediterranean region and participated in translating others. He has completed his PHD at the age of 33 years from the Moscow State University and was a visiting scientist at the University of Delaware, DE, USA at the Center of Catalytic Science and Technology in 1981 and 1982. He has been a professor of physical and surface chemistry at Damascus University since 1969. In addition to his books, He has published over twenty papers, harvested 12 patents, supervised four PHDs, and supervised nine master dissertations. He was the chief editor of the Damascus University Journal of Essential Sciences between the years of 1999-2001.

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