Adsorption Equilibria of CO_2, CO, H_2 and Their Binary Mixtures on Zeolite 5A

안의섭, 장성철, 정병만, 강석현, 최현우, 김성현[1], 최대기*
한국과학기술연구원; [1]고려대학교
(dkchoi@kist.re.kr*)

Adsorption experiments for CO_2, CO, H_2 and their binary mixtures on zeolite 5A were performed by static volumetric method. Experimental data were obtained at temperatures of 293.15, 303.15 and 313.15K and at pressures to 9 atm. The parameters obtained from single component adsorption isotherm. Multicomponent adsorption equilibria could be predicted and compared with experimental data. Langmuir isotherm, Langmuir-Freundlich isotherm and Ideal Adsorbed Solution Theory(IAST) be used to predict the experimental results for binary adsorption equilibria of CO_2/CO, CO_2/H_2 and CO/H_2 on zeolite 5A.