

Adsorption Characteristics of Pure and Hydrogen Mixture Gases on Activated Carbon

최도영, 이정인, 박주용, 양세일, 장성철, 최대기*
한국과학기술연구원
(dkchoi@kist.re.kr*)

Nitrogen adsorption/desorption isotherms and static volumetric methods were used to understand the porous structure, adsorption equilibrium, kinetics of the prepared adsorbent. The equilibrium data for pure and hydrogen mixture gases correlated successfully with extended Langmuir, extended Langmuir-Freundlich and Dual Site Langmuir model. Multi-component adsorption equilibria were predicted by using the parameters obtained from single component adsorption isotherm. Also, adsorption kinetics was evaluated based on the comparison between experimental and simulated results.