

with a specific surface area of up to 2060 m²/g in the process of capacitive deionization of aqueous solutions of sodium chloride. It was found that the greatest efficiency in the removal of dissolved ions is achieved using solutions with a low salt concentration, i.e. 5 mmol/l. The use of a dynamic method for studying the adsorption capacity of nanoporous carbon materials has allowed us to establish that composite materials based

on Kuraray YP 80F (Calgon Carbon, USA) have the most optimal characteristics, for which this value was about 6 mg/g. It was also shown that, depending on the duration of adsorption and the concentration of solutions, the pH of the eluates varied in the range from 6.5 to 4.5.

Keywords: activated carbon, capacitive deionization of water, double electric layer.