The invention relates to a process for active coal modification, which may be used as selective adsorbent for water purification from ammonia and ammonium ions.

The process, according to the invention, includes oxidation of the active coal, obtained from nutshell with 30% hydrogen peroxide during 72 hours at the room temperature, or concentrated azotic acid during 8...10 hours at the temperature of 95...105°C, or ozone in demineralized water during 1 hour at the room temperature, treatment with 1...2% alkaline solution up to the complete removal of humic acids, neutralization with 0,1 N solution of hydrochloric acid, washing with demineralized water, drying at the temperature of 100...105°C up to the constant mass, impregnation during 60...80 hours with ions of cobalt(II), or copper(II), or nickel(II), or silver(II) from the solutions of the corresponding nitrates, taken in the quantity of 350...450 mg/L, with subsequent washing with demineralized water and drying at 100...105°C up to the constant mass.

Claims: 1 Fig.: 3