Synthesis and sorption properties of composite sorbents based on the
cation exchanger KU-2-8 with hydroxide and sulfide component

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Abstract

The synthesis of composite sorbents KU-2-8-Fe(OH)₃, KU-2-8-Sn(OH)₂, KU-2-8-CuS, KU-2-8-ZnS,
KU-2-8-PbS was conducted on strongly acidic cation matrix of KU-2-8. The study of sorption kinetics of
copper(II), zinc and cadmium from solutions of their 0.01 n salts was carried out. We found the total dynamic
sorption capacities for the sorbents on copper(II), zinc, cadmium ions, in some cases exceeding the similar
data for the individual cation exchanger KU-2-8 2.0-2.4 in some cases 4 times. Explanation has been offered
of heavy non-ferrous metals sorption process on the composite sorbents with hydroxide and sulfide active
component by the mechanism of coordination copolymerization.