

THE DIFFUSION FEATURES OF  $\text{CuSO}_4 \times 5\text{H}_2\text{O}$   
IN DILUTE AQUEUOS SOLUTION

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S u m m a r y

The diffusion coefficient dependence on the concentration of  $\text{CuSO}_4 \times 5\text{H}_2\text{O}$  in an aqueous solution in the concentration range (0,05 ÷ 1,5) mol. % is obtained by refractometric and test-solution techniques. The presence of a maximum was typical of the diffusion coefficient dependence on concentration in the concentration range (0,2 ÷ 0,5) mol. %. Extrapolating the value of the  $\text{CuSO}_4 \times 5\text{H}_2\text{O}$  diffusion coefficient to the infinitesimal dilution ( $C \rightarrow 0$ ), the minimum diffusion coefficient value is determined to be in a range from  $0.2 \times 10^{-5}$  to  $0.4 \times 10^{-5}$  cm<sup>2</sup>/s. The nature of the diffusion coefficient dependence on concentration is analyzed taking into consideration the diffusant dimension. The diffusant is showed to be the aggregate of  $\text{Cu}^{2+}(\text{H}_2\text{O})_n$ ,  $\text{SO}_4^{2-}(\text{H}_2\text{O})_m$  and non-dissociated  $\text{CuSO}_4 \times 5\text{H}_2\text{O}$  molecules.