

INVESTIGATION OF PHOTOLUMINESCENCE OF THE ORGANIC DYE MOLECULES EMBEDDED IN ION-EXCHANGE MATERIALS

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Optical photoluminescence spectra of organic dye molecules embedded in ion-exchange membranes MK-40 and ion-exchangers KU-23 have been studied. "Heterogeneous" ion-exchange membranes are manufactured by compressing two films with a reinforcing material (Nylon) between them. Ion-exchangers have spherical structure. Both MK-40 and KU-23 can be considered as a porous matrix for the dye absorption. The concentration of the organic molecules in membranes can be varying by changing the hydration of the functional groups. Absorption of the dye molecules by the membrane is different from the absorption by ion-exchangers. It can be caused by chemical structure of the polymers and location of a sulfonate-containing fragment.