Studying of solubility of complex compounds with a general formula aM^{n}Cl$_n$·mZnCl$_2$·pEt$_2$O in diethyl ether (where: M = Ce, Eu, Gd, Dy; a = 2-5; n = 3; m = 1.2; p = 1-7; Et$_2$O – diethyl ether)

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Abstract

Fields of balanced crystallization of complexes of aM^{n}Cl$_n$·mZnCl$_2$·pEt$_2$O type (where: M = Ce, Eu, Gd, Dy; a = 2-5; n = 3: m = 1, 2; p = 1-7; Et$_2$O – diethyl ether) and formation of chloride complex compounds of 5CeCl$_3$·2ZnCl$_2$6Et$_2$0; 4EuCl$_3$·ZnCl$_2$· Et$_2$O, 2GdCl$_3$·2ZnCl$_2$·3Et$_2$O, 2DyCl$_3$·ZnCl$_2$·7Et$_2$O, 2DyCl$_3$·2ZnCl$_2$·Et$_2$O types have been determined during isothermal studying of solubility in M^{n}Cl$_n$-ZnCl$_2$-Et$_2$O systems at 298 K.

The founded complex compounds were isolated. The composition of phases formed in aM^{n}Cl$_n$·mZnCl$_2$· pEt$_2$O system was determined by an elemental analysis method.