

三元体系Ln(ClO₄)₃-ACAP-H-2O(Ln=La,Sm,Yb)的相平衡研究(30℃)

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摘要 测定了三元体系Ln(ClO₄)₃-ACAP-H-2O(Ln=La,Sm,Yb, ACAP=4-乙酰安替比林)在30℃时的溶解度及饱和溶液的折光率,绘制了相应的溶度图和饱和溶液的折光率-组成图.

体系的溶度曲线和折光率曲线均由三支组成,分别与ACAP,Ln(ACAP)₃(ClO₄)₃·nH₂O(Ln=La,n=4,Sm,2,Yb,2)和Ln(ClO₄)₃·nH₂O(Ln=La,n=8,Sm,9,Yb,8)相对应.从溶度图上发现了三个未见文献报道的三元化合物,它们均为固液异组成溶解的化合物.通过化学分析,元素分析,TG-DTG,IR,UV和X射线粉末衍射进行了表征.初步探讨了影响安替比林4位酰代衍生物β-二酮配体配位能力的因素

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Study on the ternary system of Ln(ClO₄)₃-ACAP-H-2O at 30℃ (Ln=La ,Sm,Yb)

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Abstract The solubilities and the refractive indexes of saturated solns. of the title systems at 30℃ have been studied and the corresponding solubility diagrams and refractive index diagrams were constructed. All the solubility curves and refractive index curves of these systems consist of three branches, corresponding to 4-acetylantipyrine (ACAP), Ln(ACAP)₃(ClO₄)₃·nH₂O (Ln = La, n = 4, Sm, 2; Yb, 2) and Ln(ClO₄)₃·nH₂O (Ln = La, n = 8; Sm, 9; Yb, 8), resp. All the three ternary compounds formed in the title systems are new compounds reported for the first time in this paper. They are incongruently soluble in water. They were characterized by chem. anal. and elemental anal., IR spectra, UV spectra, TG-DTG and X-ray powder diffraction. The complexation ability of antipyrine 4-position acyl derivatives have been discussed briefly.

Key words [ULTRAVIOLET SPECTROPHOTOMETRY](#) [PHASE EQUILIBRIUM](#) [INFRARED SPECTROPHOTOMETRY](#) [ELEMENTAL ANALYSIS](#) [X-RAY DIFFRACTION ANALYSIS](#) [SOLUBILITY](#) [TERNARY SYSTEM](#) [THERMOGRAVIMETRY](#) [REFRACTIVE INDEX](#)

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