EFFECTS OF DPA2- LIGATION AND pH ON EUROPIUM(III) IN A BIPHASIC IONIC LIQUID/WATER SYSTEM

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ABSTRACT

Europium Chloride (EuCl₃) was dissolved in the ionic liquid, 1-butyl-3-methylimidazolium hexafluorophosphate (BMIM PF₆). Deionized water was added to the liquid, creating a biphasic system. The europium(III) was thus extracted quantitatively into the water phase. Addition of three equivalents of dipicolinate, DPA₂⁻ (pH=6), resulted in aqueous phase Eu(DPA)₃²⁻. The DPA/Eu(III) ratio was increased to 10:1 and the pH decreased, moving the europium into the ionic liquid phase. Using luminescence spectroscopy the movement of europium was monitored.