

A further understanding of the cation exchange mechanism for the extraction of Sr^{2+} and Cs^+ by ionic liquid

ionic liquids, extraction, cation exchange, Sr^{2+} , Cs^+

1 Introduction

2 Experimental

2.1 Materials

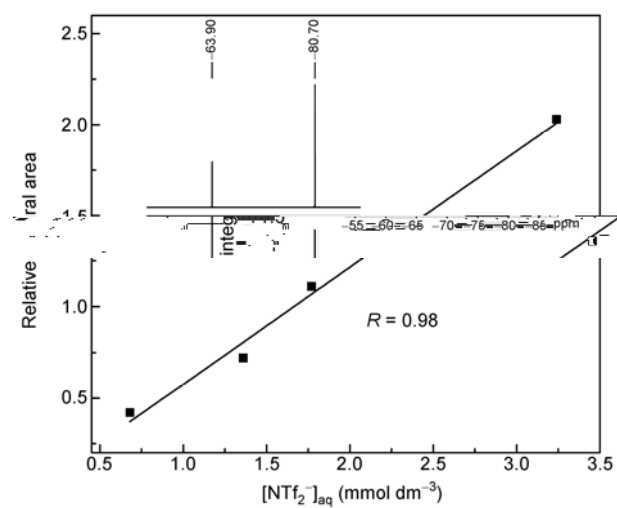


Figure 3

3 Results and discussion

3.1 Variation of $[\text{C}_2\text{mim}^+]$ and $[\text{NTf}_2^-]$ in the aqueous phase

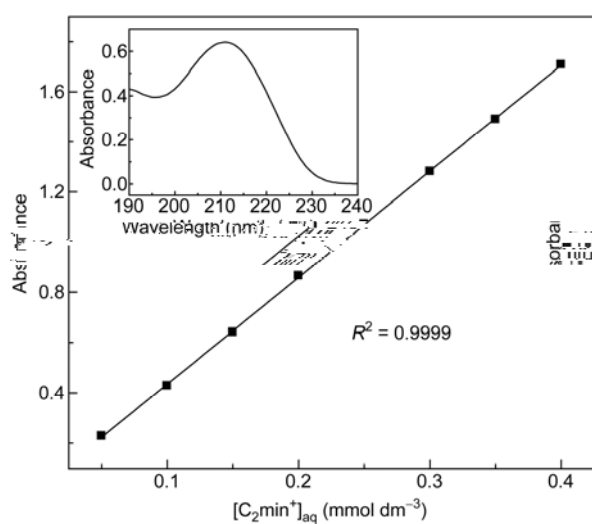


Figure 2

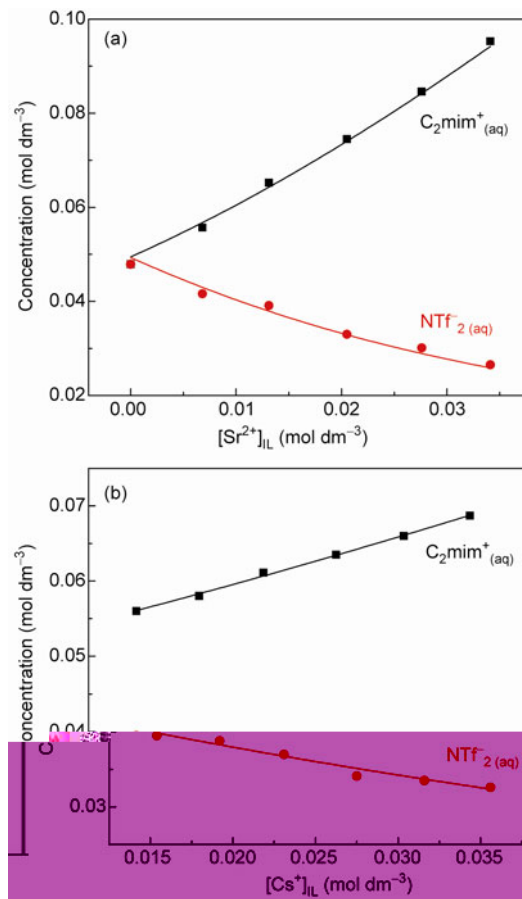


Figure 4



$$= \cdot = + \cdot \gamma_+ \cdot - \cdot \gamma_-$$

$$\gamma \quad \gamma_-$$

$$\gamma \quad \gamma_-$$

$$\gamma = \frac{-\sqrt{}}{+\sqrt{}}$$

$$\lambda$$

3.2 Effect of adding IL cation or anion on the extraction

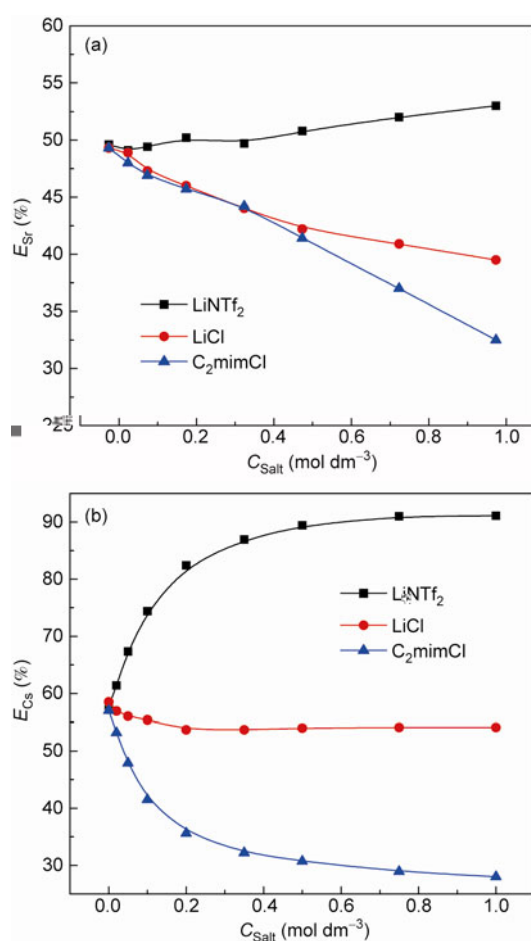


Figure 5

3.3 Effect of the variation of the IL solubility on the extraction

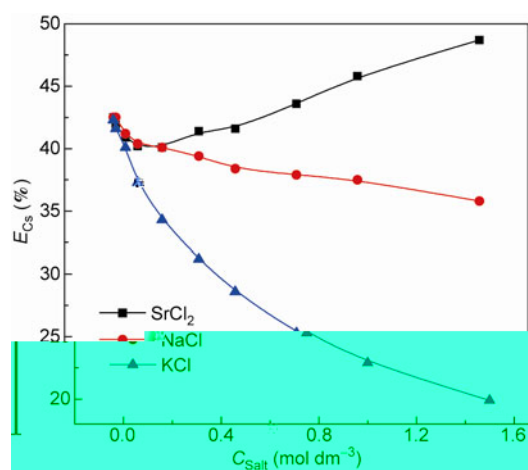


Figure 6

4 Conclusion

