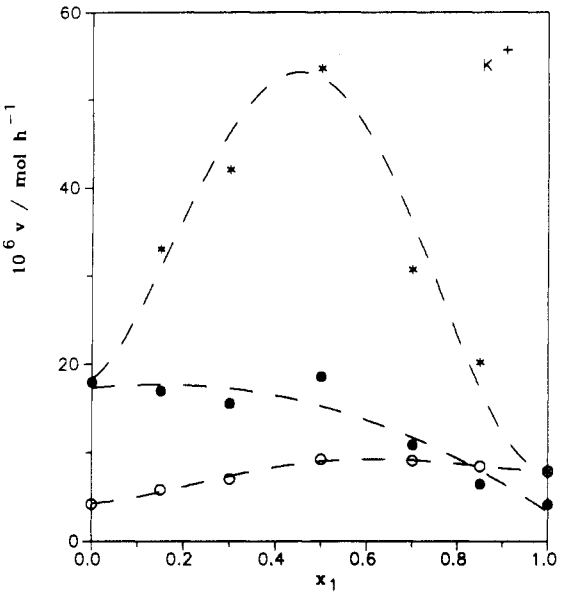

Figure 5. Dependence of the transport rate of K^+ ion on the mixed solvent composition for the systems (*) chloroform (1)–nitrobenzene (2); (●) dichloroethane (1)–nitrobenzene (2); (○) chloroform (1)–dichloroethane (2).

The results indicate that the transport rate of K^+ is much greater than that of Na^+, but the two cations behave in the same way for the mixed solvent chloroform and nitrobenzene. In both cases the trend of the transport rate as a function of the solvent composition has a maximum at about $x_{nitrobenzene} = 0.5$. Similar experiments were made with 1,2-dichloroethane + nitrobenzene and chloroform + 1,2-dichloroethane at different compositions, but for these systems the plot of v as a function of the solvent composition did not show a marked maximum as can be seen in Figures 4 and 5. The transport rate values determined for the examined pure solvents are found in the sequence

1,2-dichloroethane < chloroform < nitrobenzene

The distribution ratio shows the same sequence, and also a maximum value is found for an equimolar solution of chloroform and nitrobenzene. Therefore, it can be hypothesized that the variations in the ion fluxes are, at least in part, due to different values of the distribution ratio and in particular of the equilibrium constants for the solute–crown complexation in the different solvents. Such behavior may arise from different solvent–crown interactions in the pure and mixed solvents.

List of Symbols

A	interface area
a	activity
C	concentration
D_s	diffusion coefficient
K	overall equilibrium constant
K'	conditional constant
J	flux
l	membrane thickness
v	transport rate
γ	activity coefficient

Subscripts

a	aqueous phase
o	organic phase
M^+	alkali-metal cation
A^-	counteranion
MLA	ion pair
L	neutral ligand

Registry No. Na^+, 17341-25-2; K^+, 24203-36-9; $CHCl_3$, 67-66-3; dibenzo-18-crown-6, 14187-32-7; 1,2-dichloroethane, 107-06-2; nitrobenzene, 96-95-3.

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Correction

Ternary Liquid–Liquid Equilibria of Water, Ethanol, and Oleic Acid. Zisheng Zhang and Gordon A. Hill, *J. Chem. Eng. Data* **1991**, *36*, 453–456.

The caption to Figure 3 should read as follows:

Figure 3. Effect of temperature on interaction energy difference for water (1) + ethanol (2) + oleic acid (3): (●) A_{23}; (✱) A_{21}; (▲) A_{31}; (■) A_{13}; (—) mean values.