**COMPONENTS:**

1. Praseodymium bromide; PrBr₃; [13536-53-3]
2. 1,2-Diethoxyethane; C₆H₁₄O₂; [629-14-1]

**ORIGINAL MEASUREMENTS:**

Kirmse, E. M.


**VARIABLES:**

T/K = 298

**PREPARED BY:**

T. Mioduski and M. Salomon

**EXPERIMENTAL VALUES:**

The solubility of PrBr₃ in 1,2-diethoxyethane at 25°C was given as 0.6 mass %

The corresponding value of the molality calculated by the compiler is 0.016 mol kg⁻¹

The nature of the solid phase was not specified.

**AUXILIARY INFORMATION**

**METHOD/APPARATUS/PROCEDURE:**

Experimental details not given, but were probably similar to previous works of the author which are compiled throughout this volume.

**SOURCE AND PURITY OF MATERIALS:**

Nothing specified, but based on previous work by the author the anhydrous salt was probably prepared by the method of Taylor and Carter (1).

**ESTIMATED ERROR:**

Nothing specified.

**REFERENCES:**

1. Taylor, M.D.; Carter, C.P.
**COMPONENTS:**

| (1) Praseodymium bromide; PrBr$_3$; [13336-53-3] |
|---|---|
| (2) 1,4-Dioxane; C$_4$H$_8$O$_2$; [123-91-1] |

**ORIGINAL MEASUREMENTS:**


**VARIABLES:**

| Room temperature: T/K around 298 |

**EXPERIMENTAL VALUES:**

The solubility of PrBr$_3$ in p-dioxane at around 25°C was given as 0.35 mass %

The corresponding molality calculated by the compiler is $9.2 \times 10^{-3}$ mol kg$^{-1}$

The nature of the solid phase was not specified.

**AUXILIARY INFORMATION**

**METHOD/APPARATUS/PROCEDURE:**

The solute-solvent mixtures were isothermally agitated at 25°C or at room temperature. Authors state that the difference found for the solubility was within experimental error limits.

Pr was determined by complexometric titration.

No other details given.

**SOURCE AND PURITY OF MATERIALS:**

The anhydrous salt was prepared by the method of Taylor and Carter (1).

No other information given.

**ESTIMATED ERROR:**

Nothing specified.

**REFERENCES:**

**COMPONENTS:**

(1) Praseodymium bromide: PrBr$_3$; [13536-53-3]

(2) Alkyl amines

**ORIGINAL MEASUREMENTS:**

Kirmse, E. M.

**EXPERIMENTAL VALUES:**

<table>
<thead>
<tr>
<th>solvent</th>
<th>PrBr$_3$ solubility$^a$</th>
<th>mass %</th>
<th>mol kg$^{-1}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-propanamine; n-C$_3$H$_7$N; [107-10-8]</td>
<td>21.6</td>
<td>0.724</td>
<td></td>
</tr>
<tr>
<td>2-propanamine; iso-C$_3$H$_7$N; [75-31-0]</td>
<td>9.6</td>
<td>0.279</td>
<td></td>
</tr>
<tr>
<td>1-butanamine; n-C$_4$H$_9$N; [109-73-9]</td>
<td>9.2</td>
<td>0.266</td>
<td></td>
</tr>
<tr>
<td>2-butanamine; sec-C$_4$H$_9$N; [13952-84-6]</td>
<td>26.5</td>
<td>0.947</td>
<td></td>
</tr>
<tr>
<td>di-2-butylamine; (sec-C$_4$H$_9$)$_2$NH; [626-23-3]</td>
<td>0.04</td>
<td>0.0011</td>
<td></td>
</tr>
</tbody>
</table>

$^a$Molarities calculated by the compilers.

**AUXILIARY INFORMATION**

**METHOD/APPARATUS/PROCEDURE:**

Experimental details not given, but were probably similar to previous works of the author which are compiled throughout this volume.

Nature of solid phases not specified.

**SOURCE AND PURITY OF MATERIALS:**

Nothing specified, but based on previous work by the author the anhydrous salt was probably prepared by the method of Taylor and Carter (1).

**ESTIMATED ERROR:**

Nothing specified.

**REFERENCES:**

1. Taylor, M.D.; Carter, C.P.