

Diffusion coefficient of phosphoric acid tributyl ester in tetradecane

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.1. Diffusion in Binary Mixtures

$C_{12}H_{27}O_3P$	(1)	phosphoric acid tributyl ester	102-85-2
$C_{14}H_{30}$	(2)	tetradecane	629-59-4
Intradiffusion Coefficient: D_{1T} (φ_1); $T = 295.15 \pm 0.5$ K; Method: NMR FG			Ref.: [1972V2]
φ_1	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.0	101.32	$0.59 \pm 10\%$	
0.25	101.32	$0.52 \pm 10\%$	
0.375	101.32	$0.48 \pm 10\%$	
0.50	101.32	$0.44 \pm 10\%$	
0.667	101.32	$0.38 \pm 10\%$	
0.857	101.32	$0.32 \pm 10\%$	

Comment: φ_1 = volume fraction

Symbols and Abbreviations

Short Form	Full Form
D	diffusion coefficient
p	pressure
T	temperature
NMR FG	NMR spin echo field gradient
φ_i	volume fraction

References

[1972V2] Vashman, A. A., Pronin, I. S.: Zh. Strukt. Khim. **13** (1972) 1008–1015.