

Diffusion coefficient of decane in heptane

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.1. Diffusion in Binary Mixtures

$C_{10}H_{22}$	(1)	decane	124-18-5
C_7H_{16}	(2)	heptane	142-82-5
Mutual Diffusion Coefficient: $D_{12}(w_i)$; $T = 298.15$ K; Method: OEC			Ref.: [2008B3]
w_1	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.50	101.32	2.23 ± 0.11	
0.50*	101.32	2.61 ± 0.20	
Comment: *: measured by FRS			
Mutual Diffusion Coefficient: $D_{12}(w_i)$; $T = 298.15$ K; Method: OEC			Ref.: [2007L2]
w_1	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.50	101.32	2.23 ± 0.11	

Symbols and Abbreviations

Short Form	Full Form
D	diffusion coefficient
p	pressure
T	temperature
OEC	open ended capillary
FRS	forced Rayleigh scattering
w_i	mass fraction

References

- [2008B3] Blanco P., Polyakov, P., Bou-Ali, M. M., Wiegand, S.: J. Phys. Chem. B **112** (2008) 8340–8345.
 [2007L2] Leahy-Dios A., Firoozabadi, A.: J. Phys. Chem. B **111** (2007) 191–198.