

Diffusion coefficient of N-methyl-propionamide in pyridine

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.1. Diffusion in Binary Mixtures

C ₄ H ₉ NO	(1)	N-methyl-propionamide	1187-58-2
C ₅ H ₅ N	(2)	pyridine	110-86-1
Intradiffusion Coefficient: $D_{1T}(x_i)$; $T = 298.15$ K; Method: OEC			Ref.: [1972C1]
x_1	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.0	101.32	1.17	
0.10	101.32	1.07	
0.25	101.32	0.85	
0.35	101.32	0.73	
0.50	101.32	0.56	
0.60	101.32	0.45	
0.75	101.32	0.40	
0.90	101.32	0.27	
1.0	101.32	0.25	

Comment: extracted from graphics

Intradiffusion Coefficient: $D_{2T}(x_i)$; $T = 298.15$ K; Method: OEC			Ref.: [1972C1]
x_1	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.0	101.32	1.51	
0.10	101.32	1.35	
0.25	101.32	1.13	
0.35	101.32	1.00	
0.50	101.32	0.87	
0.60	101.32	0.76	
0.75	101.32	0.60	
0.90	101.32	0.47	
1.0	101.32	0.37	

Comment: extracted from graphics

Symbols and Abbreviations

Short Form	Full Form
D	diffusion coefficient
p	pressure
T	temperature
OEC	open ended capillary
x_i	mole fraction

References

[1972C1] Calas, M., Kamenka, N., Brun, B., Salvinien, J.: J. Chim. Phys. Phys.-Chim. Biol. **69** (1972) 299–305.