

Diffusion coefficient of piperazine-2,5-dione in water

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.1. Diffusion in Binary Mixtures

C ₄ H ₆ N ₂ O ₂	(1)	piperazine-2,5-dione	106-57-0
H ₂ O	(2)	water	7732-18-5
Mutual Diffusion Coefficient: $D_{12}(c_i)$; $T = 298.15$ K; Method: B-INT			Ref.: [1970P3]
c_1 [mol/dm ³]	p [kPa]	$D \cdot 10^9$ [m ² /s]	
0.0	101.32	0.991 ± 0.1%	
0.00843	101.32	0.9831 ± 0.1%	
0.00843	101.32	0.9884 ± 0.1%	
0.00843	101.32	0.9917 ± 0.1%	
0.00843	101.32	0.9903 ± 0.1%	
0.00843	101.32	0.9895 ± 0.1%	
0.00843	101.32	0.9912 ± 0.1%	

Symbols and Abbreviations

Short Form	Full Form
D	diffusion coefficient
p	pressure
T	temperature
c_i	molarity
B-INT	Bryngdahl interferometry

References

[1970P3] Pepela, C. N., Steel, B. J., Dunlop, P. J.: J. Am. Chem. Soc. **92** (1970) 6743–6750.