

Diffusion coefficient of pyrene into hexane and heptane at infinite dilution

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.4. Diffusion in Ternary Mixtures at Infinite Dilution

C ₁₆ H ₁₀	(1)	pyrene	129-00-0
C ₆ H ₁₄	(2)	hexane	110-54-3
C ₇ H ₁₆	(3)	heptane	142-82-5
Diffusion coefficient at infinite dilution: $D_{1(23)}^{\circ}(x_i)$; Method: TAYLOR			Ref.: [2007S4]
$T = 298.15 \text{ K}; p = 101.325 \text{ kPa}$			
x_2	x_1	$D_{1(23)}^{\circ} \cdot 10^9 \text{ [m}^2/\text{s]}$	
0.0000		2.16 ± 3%	
0.1330		2.21 ± 3%	
0.2015		2.23 ± 3%	
0.3004		2.26 ± 3%	
0.4004		2.30 ± 3%	
0.4990		2.34 ± 3%	
0.5965		2.40 ± 3%	
0.6995		2.43 ± 3%	
0.8002		2.48 ± 3%	
0.9001		2.53 ± 3%	
1.0000		2.58 ± 3%	

Symbols and Abbreviations

Short Form	Full Form
x_i	mole fraction
D	diffusion coefficient
p	pressure
T	temperature
TAYLOR	Taylor dispersion technique

References

[2007S4] Safi A., Nicolas, C., Neau, E., Chevalier, J. L.: J. Chem. Eng. Data **52** (2007) 126–130.