SUPPORTING INFORMATION

Freezing and Glass Transition Phenomena for 1,2-Dichloroethane Under High Pressure as Revealed by Fluorescence Spectroscopy

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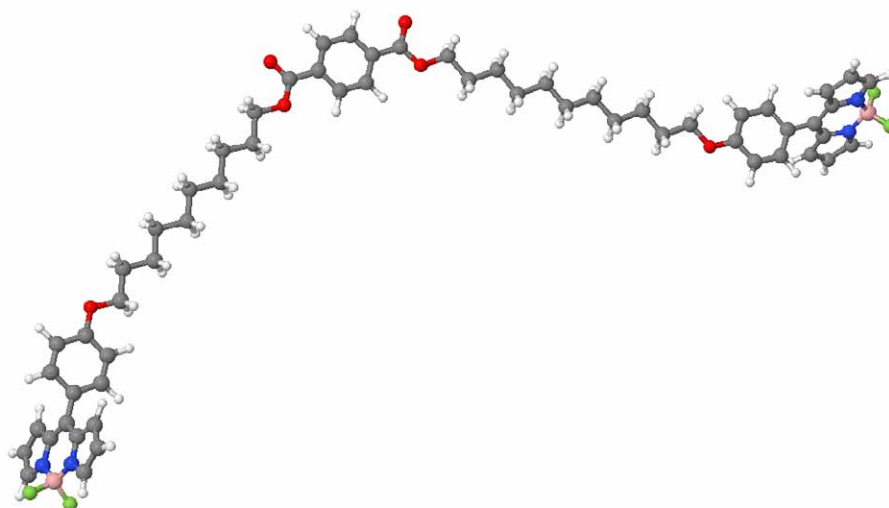

Figure S1. Energy-minimised geometry computed for ROBOD. The optimisation of the S_0 ground-state geometries in the gas phase was performed with the density functional theory (DFT) method employing the hybrid functional B3LYP with a 6-31G(d) basis set and energy minimised as implemented in Gaussian 03.

Table S1. Compilation of refractive indices measured for DCE at different applied pressures and at 20 ^{0}C.

Pressure / MPa	n (ROBOD) [a]	n (Michelson) [b]	V_M / cm^3 mol^{-1}
0	1.4421	1.4421	73.31
27.5	1.4549	1.4537	70.42
55	1.4653	1.4635	68.26
82.5	1.4761	1.4740	66.14
110	1.4798	1.4833	65.45
132.5	1.4915	1.4909	63.40
165	1.4978	1.4967	62.28
1925.	1.5030	1.5037	61.45
220	1.5095	1.5079	61.11
247.5	1.5086	1.5112	60.42
275	1.5166	1.5156	60.57
302.5	1.5163	1.5184	59.35
330	1.5231	1.5214	59.41

(a) Measured by absorption spectroscopy using ROBOD as a probe. (b) Measured by Michelson inteferrometry.
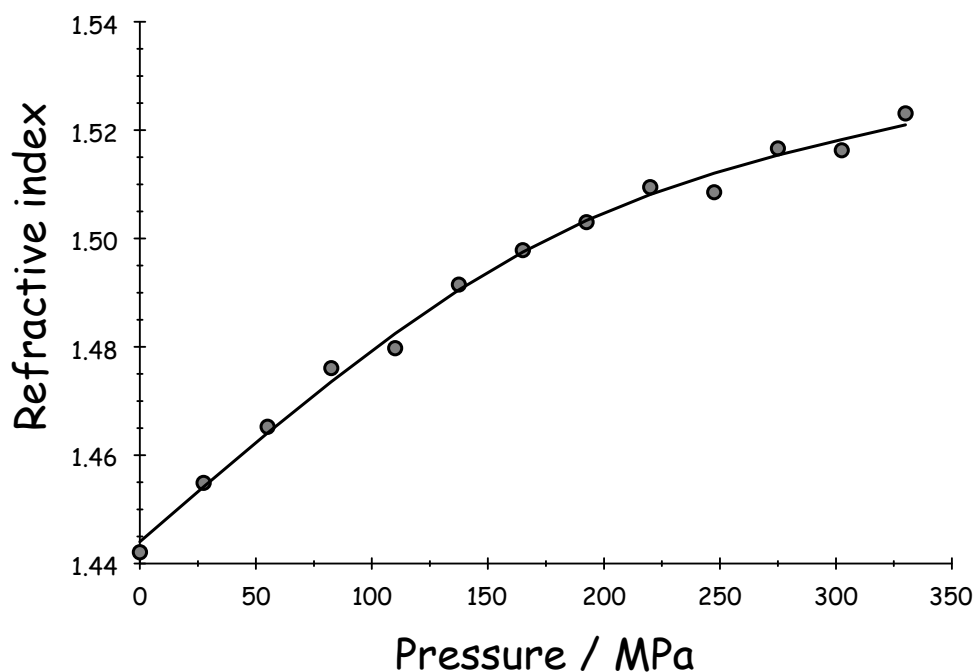

Figure S2. Effect of applied pressure on the refractive index measured for DCE at 20 ^{0}C.
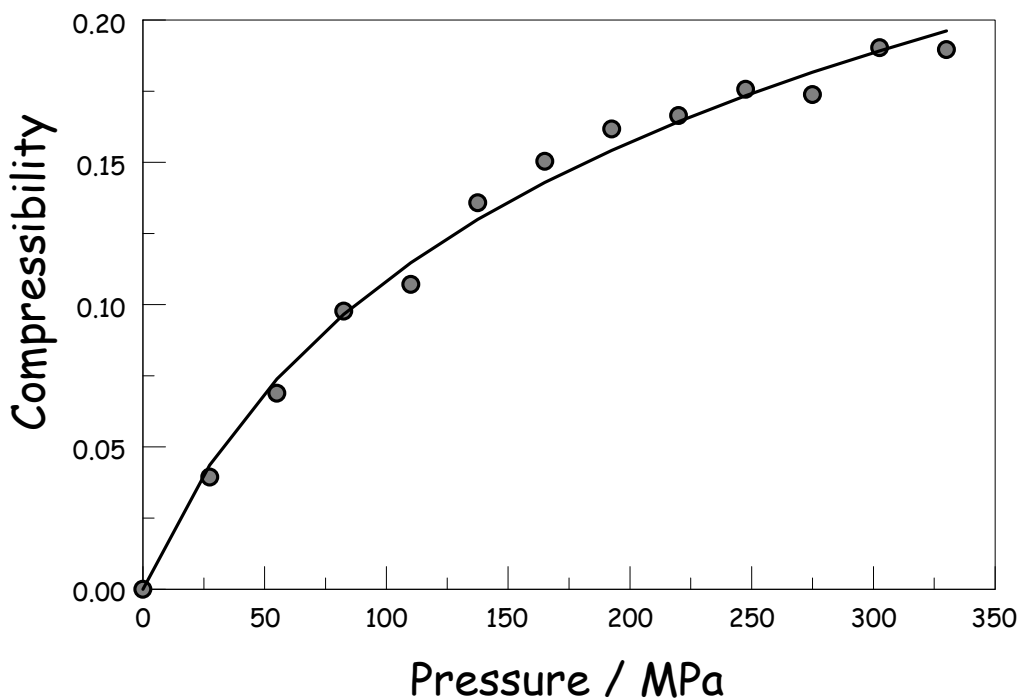
Figure S3. Effect of pressure on the molar volume, as expressed in terms of the compressibility. The solid line drawn through the data points is a fit to the Tait expression.
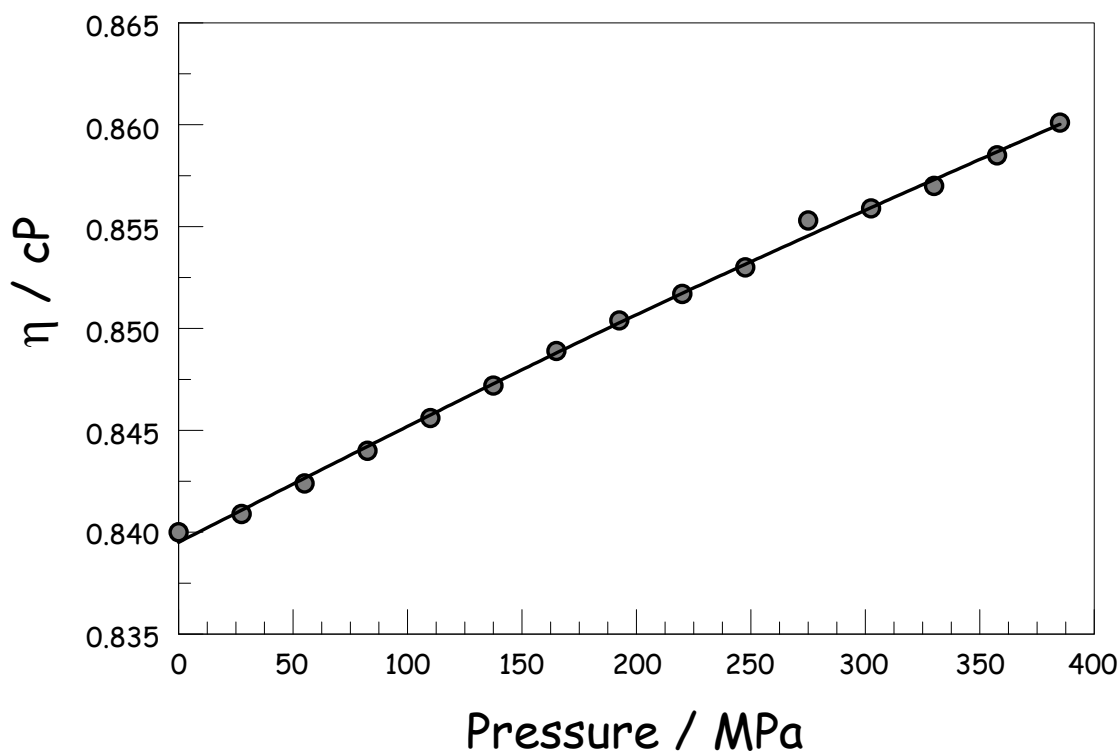

Figure S4. Effect of pressure on the viscosity of DCE. The solid line drawn through the data points is a fit to the Tait expression.