

the accompanying table K_D stands for the dielectric constant, H_V for the latent heat of vaporization, and K_H for the absolute conductivity for heat. It is to be observed that on the whole all three quantities decrease simultaneously. These properties are also related to the critical pressure, to the van der Waals constant a , and to the molecular volume at the boiling point.

SOLVENT	K_D	H_V	K_H
Water, H_2O	81.7	536.5	0.154
Methyl alcohol, CH_3OH	32.5	267.5	0.0495
Ethyl alcohol, C_2H_5OH	21.7	205	0.0423
Formic acid, $H \cdot COOH$	57.0	103.7	0.0648
Acetic acid, $CH_3 \cdot COOH$	6.5	89.8	0.0472
Ammonia, NH_3	16	329	—
Methylamine, $CH_3 \cdot NH_2$	< 10.5	—	—
Sulphurous oxide, SO_2	14	92.5	—
Acetone, $CH_3 \cdot CO \cdot CH_3$	20.7	125.5	—
Ethylacetate, $CH_3 \cdot CO \cdot O \cdot C_2H_5$	5.85	86.7	0.0348
Benzene, C_6H_6	2.26	93.5	0.0333
Toluene, $C_6H_5 \cdot CH_3$	2.31	83.6	0.0307
Ether, $(C_2H_5)_2O$	4.36	84.5	0.0303
Chloroform, $CHCl_3$	4.95	58.5	0.0288
Tetrachlormethane, CCl_4	2.18	46.35	0.0252
Stannic chloride, $SnCl_4$	3.2	30.53	—

Such evidence clearly suggests that some of the manifold fitnesses of water proceed from a single cause or group of causes. For the present, however, these relationships are