

Table 3.5. Comparison of n_D for aromatic and nonaromatic compounds.

Nonaromatic		Aromatic	
Compound	n_D	Compound	n_D
Cyclohexane	1.426	Benzene	1.501
Cyclohexylamine	1.456	Aniline	1.584

Table 3.4. Dielectric constants, ϵ_r , of some solvents at 25 °C.

Solvent	ϵ_r	Solvent	ϵ_r
Hexane	1.88	HMPA, HMTA	29.6
Cyclohexane	2.02	Methanol	32.66
Diethyl ether	4.20	Acetonitrile	35.94
Acetic acid	6.17	DMF	36.71
Tetrahydrofuran	7.58	Dimethyl sulfoxide	46.45

Table 3.7. Donor numbers of some solvents.

Solvent	Donor number DN/kcal mol ⁻¹
Water	18-33
Acetone	17
Dimethyl sulfoxide	29.8
HMPA	38.8
Hexane	0
Ethane	32

Table 3.8. Acceptor numbers and the E_T^N scale for common solvents.

Solvent	Acceptor number	E_T^N
Cyclohexane	0	0.006
Acetonitrile	18.9	0.47
DMSO	19.3	0.444
Ethanol	37.9	0.654
Acetic acid	52.9	0.82
Water	54.8	1