

46.68

36.71

38.8

30.0

20.7

8.93

7.58

6.7

6.02

3.96

3 86

3.92

5.54

2.88

1.60

1.75

1.69

1.78



189

153

81.6

233

56

39.6

66

57

77.1

COMMON POLAR APROTIC SOLVENTS

Dimethylsulfoxide

Dimethylformamide

Hexamethylphosphoric

(DMSO)

(DMF)

Acetonitrile

acid (HMPA)

Acetone

Dichloromethane

Tetrahydrofuran

Methyl acetate

Ethyl acetate

(THF)

(MeCN)

Solvent	Structure	Dielectric Constant	Dipole Moment	Boiling
(between 5 and 20) r reactions. Aprotic sol moments can dissolve	moderately higher diele make adequate general-p vents with dielectric cor e charged species such onding in the solvent, th m more reactive.	ourpose solver nstants greater as various anio	nts for a wide than 20 and ns used as nu	range of large dipole ıcleophiles.

Solvent	Structure	Dielectric Constant	Dipole Moment	Boiling Point (°C)			
(between 5 and 20) make adequate general-purpose solvents for a wide range of reactions. Aprotic solvents with dielectric constants greater than 20 and large dipole moments can dissolve charged species such as various anions used as nucleophiles. Without hydrogen bonding in the solvent, these nucleophiles are relatively free in solution, making them more reactive.							

H₃C — S — CH₃

CH₃

CH₃ :N—CH₃

 $H_3C - \ddot{N} - \dot{P} - \ddot{N} - CH_3$ CH₃.O. CH₃

:CI —C — CI: