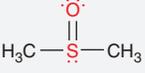
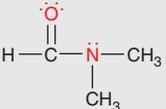
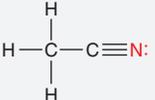
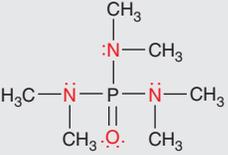
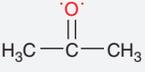
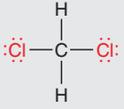
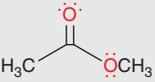
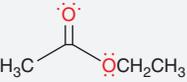


## COMMON POLAR APROTIC SOLVENTS

Aprotic solvents with moderately higher dielectric constants than nonpolar solvents (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.

Solvent	Structure	Dielectric Constant	Dipole Moment	Boiling Point (°C)
Dimethylsulfoxide (DMSO)		46.68	3.96	189
Dimethylformamide (DMF)		36.71	3.86	153
Acetonitrile (MeCN)		38.8	3.92	81.6
Hexamethylphosphoric acid (HMPA)		30.0	5.54	233
Acetone		20.7	2.88	56
Dichloromethane		8.93	1.60	39.6
Tetrahydrofuran (THF)		7.58	1.75	66
Methyl acetate		6.7	1.69	57
Ethyl acetate		6.02	1.78	77.1