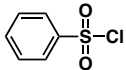
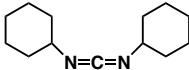
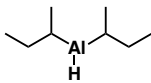
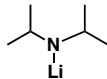
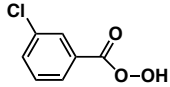
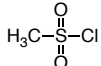


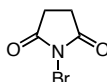
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Acetone		Polar aprotic solvent; see "Solvents" page
AgNO ₃	Silver nitrate	SN1 reactions
Ag ₂ O	Silver oxide	Used in the Tollens reaction
AIBN		Initiator for free radical reactions
AlBr ₃	Aluminum bromide	Catalyst for addition to aromatic rings
AlCl ₃	Aluminum chloride	Catalyst for additions to aromatic rings
BH ₃	Borane	Hydroboration
Br ₂	Bromine	Adds to alkenes, aromatic rings
BsCl	Benzenesulfonyl chloride	Converts alcohols to good leaving groups
		
CCl ₄	Carbon tetrachloride	Nonpolar solvent; see "Solvents" page
Cl ₂	Chlorine	Adds to alkenes, aromatic rings
CN [⊖]	Cyanide	Good nucleophile
CrO ₃	Chromium Trioxide	Oxidant for alcohols and aldehydes
CuBr	Copper Bromide	Adds Br to aromatic rings; forms organocuprates
CuCN	Copper Cyanide	Adds CN to aromatic rings
CuCl	Copper Chloride	Adds Cl to aromatic rings; forms organocuprates
CuI	Copper Iodide	Forms organocuprates
DCC	Dicyclohexane carbodiimide	Reagent for forming amides from carboxylic acids and amines
		
DMF	N,N'-dimethylformamide	Polar aprotic solvent (see "Solvents" page)
DMS	Dimethyl sulfide	For reductive workup in ozonolysis
DMSO	Dimethyl sulfoxide	Polar aprotic solvent; see "Solvents" page
Diazomethane	CH ₂ N ₂	Forms methyl esters, used in the Wolff Rearrangement
DIBAL	Diisobutyl aluminum hydride	Bulky reducing agent for esters, nitriles
		

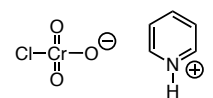
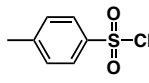
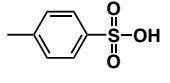
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Ether	Diethyl ether	Solvent (see "Solvents" page)
FeBr ₃	Iron (III) Bromide	Catalyst for additions to aromatic rings
Grignard Reagents	R-MgX	Adds carbon groups to ketones, esters, aldehydes...
HBr	Hydrobromic acid	Strong acid, adds to alkenes and alkynes
HCl	Hydrochloric acid	Strong acid, adds to alkenes and alkynes
H ₂ CrO ₄	Chromic acid	Strong oxidant for alcohols
Hg(OAc) ₂	Mercuric Acetate	For oxymercuration of alkenes and alkynes
HI	Hydroiodic acid	Strong acid, adds to alkenes and alkynes
HONO	Nitrous acid	Forms diazonium salts from aromatic amines
HIO ₄	Hydroiodic acid	Oxidant, forms aldehydes/ketones from vicinal diols
H ₂ O ₂	Hydrogen peroxide	Oxidant, for hydroboration and ozonolysis
I ₂	Iodine	Adds to alkenes and alkynes
KMnO ₄	Potassium permanganate	Oxidant for alkenes, alcohols, aldehydes, alkanes
K ₂ Cr ₂ O ₇	Potassium Dichromate	See H ₂ CrO ₄
KCN	Potassium cyanide	See CN
KOtBu	Potassium t-butoxide	Bulky base
LDA	Lithium diisopropyl amide	Strong bulky base
		
LiAlH ₄	Lithium aluminum hydride	Strong reducing agent for carbonyl compounds
Lindlar's catalyst		Reducing agent for alkynes to give cis-alkenes
LiAl(Ot-Bu) ₃		Bulky reducing agent for acid chlorides to give aldehydes
mCPBA	m-chloroperbenzoic acid	Oxidant, gives epoxides from alkenes
		
MsCl	Methanesulfonyl chloride	Converts alcohols into good leaving groups
		

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N_3^-	Azide	Good nucleophile
Na	Sodium	Reducing agent for alkynes, aromatic groups
NaBH_4	Sodium Borohydride	Reduces aldehydes/ketones to alcohols
NaCN	Sodium cyanide	See CN
$\text{Na}_2\text{Cr}_2\text{O}_7$	Sodium Dichromate	See H_2CrO_4
NaH	Sodium Hydride	Strong base, poor nucleophile
NaIO_4	Sodium periodate	Cleaves 1,2-diols to carbonyls
NaNH_2	Sodium amide	Strong base
NaOtBu	Sodium t-butoxide	See KOtBu
NBS	N-Bromo succinimide	Source of bromine, used for allylic bromination
		
NCS	N-chloro succinimide	Source of chlorine, used in alkene addition reactions
NH_2OH	Hydroxylamine	Formation of oxime 
NIS	N-Iodo succinimide	Sources of iodine, used in alkenes addition reactions
NH_3	Ammonia	Base, occasional solvent
NH_2NH_2	Hydrazine	Good nucleophile, used in the Wolff-Kishner reaction
Ni_2B	Nickel Boride	Reduces alkynes to cis-alkenes
OsO_4	Osmium Tetraoxide	Converts alkenes to cis-diols (glycols)
O_3	Ozone	Cleaves double and triple bonds to carbonyl compounds
Organocuprates	R_2CuLi	Adds carbon groups to double bonds, alkyl halides
Organolithium reagents	R-Li	Adds carbon groups to carbonyl compounds
$\text{Pb}(\text{OAc})_4$	Lead tetra-acetate	Cleaves 1,2-diols to carbonyl compounds
PBr_3	Phosphorus Tribromide	Converts alcohols/ acids to alkyl / acyl bromides
PCl_3	Phosphorus Trichloride	Converts alcohols/ acids to alkyl / acyl chlorides
P_2O_5	Phosphorus Pentoxide	Converts acids to anhydrides, amides to nitriles
Pt	Platinum	For reduction of double / triple bonds with H_2
Pd/C	Palladium on carbon	For reduction of double / triple bonds with H_2

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PCC	Pyridinium chlorochromate	Oxidizes alcohols to aldehydes/ketones
		
Ph_3P	Triphenyl phosphine	Used in the Wittig reaction
Pyr	Pyridine	Weak base
		
Raney Nickel		Reducing agent, replaces sulfur with H
RO-OR	"Peroxides"	Free radical initiator
SO_3	Sulfur Trioxide	For installation of SO_3H on an aromatic ring
SOBr_2	Thionyl bromide	Converts alcohols/acids to alkyl / acyl bromides
SOCl_2	Thionyl chloride	Converts alcohols/acids to alkyl/acyl chlorides
Sn	Tin	For reduction of nitro groups to amines
THF	Tetrahydrofuran	Solvent (see "Solvents" page)
TsCl	Tosyl chloride	Converts alcohols to tosylates (good leaving group)
		
TsOH	Tosic acid	Strong acid
		
Zn	Zinc	Reducing agent, for ozonolysis and nitro groups
Zn(Hg)	Zinc amalgam	For Clemmensen reduction, ketones to alkanes
Zn(Cu)	Zinc-copper couple	For cyclopropanation reactions with CH_2I_2