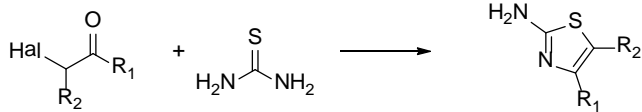
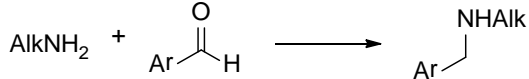
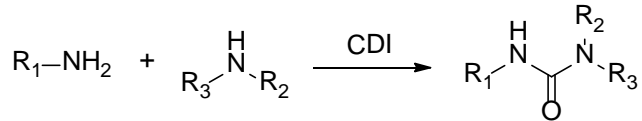
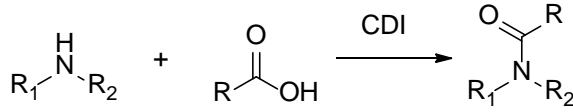
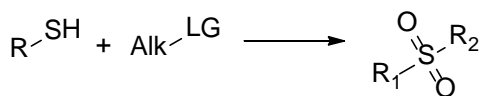
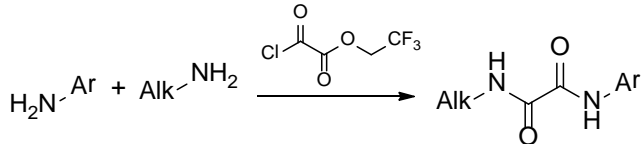
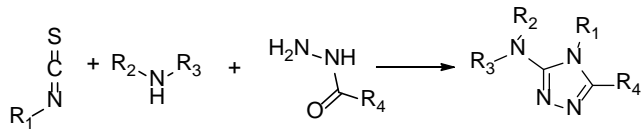
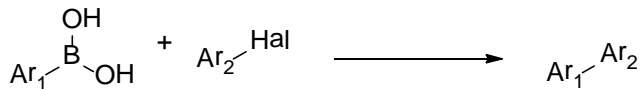
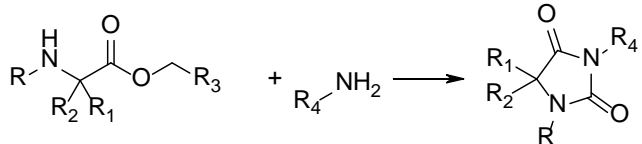
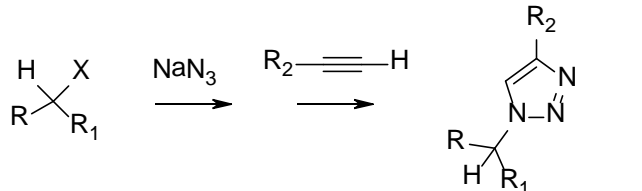


#	ID	SCHEME AND DESCRIPTION	Reaction type	Product	R1	R2	R3	Additional reagent
1.	20	$R_1-\underset{\text{H}}{\text{N}}-R_2 + R-\overset{\text{O}}{\underset{\text{O}}{\text{S}}}-\text{Cl} \xrightarrow{\text{NaOAc}} R-\overset{\text{O}}{\underset{\text{O}}{\text{S}}}-\overset{\text{R}_1}{\underset{\text{R}_2}{\text{N}}}$ <p>Sulfonamide: amine + sulfonyl chloride + sodium acetate</p>	Sulfoacylation	Sulfonyl amide	Amine	Sulfonyl chloride	-	-
2.	34	<p>N-, S-, O-alkylation</p> $R-\text{NH}_2 + \text{AlkHal} \longrightarrow R-\overset{\text{H}}{\text{N}}-\text{Alk}$ <p>Alkyl amine: amine + alkyl halide</p> $R-\text{OH} + \text{AlkHal} \longrightarrow R-\text{O}-\text{Alk}$ <p>Ether: alcohol + alkyl halide</p> $R-\text{SH} + \text{AlkHal} \longrightarrow R-\text{S}-\text{Alk}$ <p>Thioether: thiol + alkyl halide</p>	Alkylation	Amine/ Ether/ Thioether	Amine/ Alcohol/ Thiol	Alkyl halide	-	-
3.	38	$R_1-\overset{\text{H}}{\text{N}}-\text{Ar} + \text{Alk}-\text{Hal} \longrightarrow R_1-\overset{\text{Ar}}{\text{N}}-\text{Alk}$ <p>R1: H, Alk, Ar</p> <p>Alkyl aryl amine: aryl amine + alkyl halide</p>	Alkylation	Amine	Amine	Alkyl halide	-	-

4.	43	 <p>2-amino-1,3-thiazole: thiourea/thioamide + α-Hal-ketone</p>	Heterocyclization	1,3-thiazole	Thiourea/Thioamide	α -Hal ketone	-	-
5.	207	 <p>Amine (reductive amination): alkyl amine + aryl aldehyde + reduction</p>	Condensation; Reduction	Amine	Amine	Aldehyde/Ketone	-	Sodium Borohydride
6.	512	 <p>R1 = Alk R2, R3 = Alk, H</p> <p>Urea: amine + amine + CDI</p>	Acylation	Urea	Amine	Amine	-	CDI
7.	527	 <p>Amide: amine + acid + CDI</p>	Acylation	Amide	Amine	Acid	-	-
8.	2714	 <p>R = Alk, Ar LG = Cl, OSO2R</p> <p>Sulfone: thiol + alkyl halide + oxidation</p>	Alkylation	Sulfone	Thiol	Alkyl halide	-	Oxidative agent

9.	2718	 <p>Oxamide: aryl amine + primary/secondary alkyl amine + 2',2',2'-trifluoroethylchloroformate</p>	Acylation	Oxamide	Amine	Amine	-	2',2',2'-trifluoroethyl chloroxo formiate
10.	270942	 <p>1,2,4-triazole: thioisocyanate + amine + hydrazide</p>	Heterocyclization	1,2,4-triazole	Thioisocyanate	Amine	Hydrazide	-
11.	271570	 <p>Biaryl (Suzuki): aryl boronic acid + aryl halide</p>	Coupling	Biaryl	Boronic derivative	Aryl halide	-	-
12.	272104	 <p>Hydantoin: amine + α-amino acid ester + bis-(2,2,2-trifluoroethyl)carbonate</p>	Heterocyclization	Hydantoin	Amine	α-amino acid ester	-	bis-(2,2,2-trifluoroethyl) carbonate
13.	274090	 <p>1,2,3-triazole: alkyl halide + sodium azide + terminal alkyne</p>	Heterocyclization	1,2,3-triazole	Alkyl halide	Terminal alkyne	-	Sodium azide