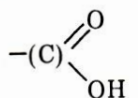
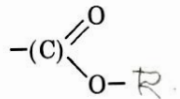
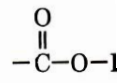
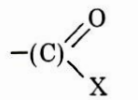
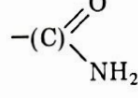
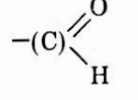
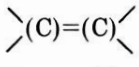


Table 3.1 Common Functional Groups

Functional group	Name of function = generic name of family of compounds containing it		
$\left. \begin{array}{l} -F \\ -Cl \\ -Br \\ -I \end{array} \right\} -X$	$\left. \begin{array}{l} \text{alkyl fluoride} \\ \text{alkyl chloride} \\ \text{alkyl bromide} \\ \text{alkyl iodide} \end{array} \right\} \text{alkyl halide}$	$\left. \begin{array}{l} \text{FLUORURO ALCHILICO} \\ \text{CLORURO ALCHILICO} \\ \text{BROMURO ALCHILICO} \\ \text{IODURO ALCHILICO} \end{array} \right\}$	ALOGENURO ALCHILICO
$\begin{array}{l} -OH \\ -O- \end{array}$	$\begin{array}{l} \text{alcohol} \\ \text{ether} \end{array}$	$\begin{array}{l} \text{ALCOOL} \\ \text{ETERE} \end{array}$	
$\begin{array}{l} \diagup \text{C}=\text{C} \diagdown \\ -\text{C}\equiv\text{C}- \end{array}$	$\begin{array}{l} \text{alkene or olefin} \\ \text{alkyne or acetylene} \end{array}$	$\begin{array}{l} \text{ALCHENE OPPURE OLEFINA} \\ \text{ALCHINO} \end{array}$	
$\begin{array}{l} \text{O} \\    \\ -\text{C}- \end{array}$	$\left. \begin{array}{l} \text{ketone} \\ \text{aldehyde} \end{array} \right\} \text{carbonyl compounds, carbonyl function}$	$\text{CHETONE}$	COMPOSTO CARBONILICO
$\begin{array}{l} \text{O} \\    \\ -\text{C}-\text{H} \end{array}$		$\text{ALDEIDE}$	
$\begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{O}-\text{H} \end{array}$	$\text{carboxylic acid}$	$\text{ACIDO CARBOSSILICO}$	
$\begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{O}- \end{array}$	$\text{ester}$	$\text{ESTERE}$	
$\begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{Cl} \end{array}$	$\text{acyl chloride}$	$\text{CLORURO ACILICO}$	DERIVATI DEGLI ACIDI CARBOSSILICI
$\begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{N} \end{array} \begin{array}{l} \text{H} \\   \\ \text{H} \end{array}, \begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{N} \end{array} \begin{array}{l} \text{H} \\   \\ \text{H} \end{array}, \begin{array}{l} \text{O} \\    \\ -\text{C} \\   \\ \text{N} \end{array} \begin{array}{l} \text{H} \\   \\ \text{H} \end{array}$	$\text{amide}$	$\text{AMMIDE}$	
$-\text{C}\equiv\text{N}$	$\text{nitrile}$	$\text{NITRILE}$	
$-\text{NO}_2$	$\text{nitro}$	$\text{NITRODERIVATO}$	
$-\text{SO}_3\text{H}$	$\text{sulfonic acid}$	$\text{ACIDO SOLFONICO}$	
$\begin{array}{l} \text{H} \\   \\ -\text{N} \\   \\ \text{H} \end{array}, \begin{array}{l} \text{H} \\   \\ -\text{N} \\   \\ \text{H} \end{array}, \begin{array}{l} \text{H} \\   \\ -\text{N} \\   \\ \text{H} \end{array}$	$\text{amine}$	$\text{AMMINA}$	

**Table 7.1** Family and Substituent Names

Priority	Group <sup>a</sup>	Family name	Substituent name
1		alkanoic acid	carboxy
2	-SO <sub>3</sub> H	alkanesulfonic acid	sulfo
3		alkyl alkanoate	alkoxycarbonyl = 
4		alkanoyl halide	haloformyl
5		alkanamide	carbamoyl
6		alkanal	formyl
7	-(C)≡N	alkanonitrile	cyano
8	=O	alkanone	oxo
9	-OH	alkanol	hydroxy
10	-NH <sub>2</sub>	alkylamine	amino
11	-O-	alkyl alkyl ether	alkoxy = -O-R
12	-(C)≡(C)-	alkyne	yne
13		alkene	ene
14	None, -X, or -NO <sub>2</sub>	alkane	<sup>b</sup>

**FAMIGLIA**  
GRUPPO PRINCIPALE

ACIDO ALCANOICO

ACIDO ALCANSOLFONICO

ALCHIL ALCANOATO

ALCANOIL ALOGENURO

ALCANAMMIDE

ALCANALE

ALCANONITRILE

ALCANONE

ALCANOLO

ALCHILAMMINA / ALCANAMMINA

ALCHIL ALCHIL ETERE

ALCHINO

ALCHENE

ALCANO

**SOSTITUENTE**

CARBOSSI

SULFO

ALCOSSICARBONIL

ALOFORMIL

CARBAMOIL

FORMIL

CIANO

OSSO

IDROSSI

AMMINO

ALCOSSI

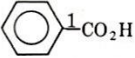
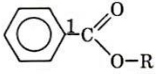
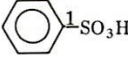
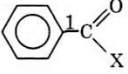
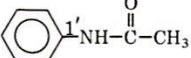
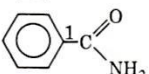
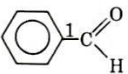
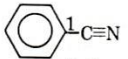
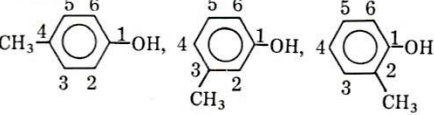
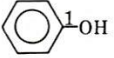
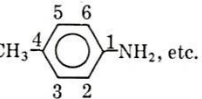
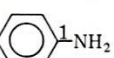
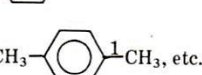
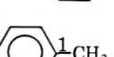

-INO

-ENE

<sup>a</sup>Carbon atoms in parentheses are counted as part of the skeleton when this group is the principal group, but as part of the substituent group when this group is not the top-priority one.

<sup>b</sup>The groups -X (-F, -Cl, -Br, and -I) and -NO<sub>2</sub> never play the role of principal group. Compounds containing these as the only functional groups are named as derivatives of the alkanes. These groups, then, are substituent groups, for which we use the substituent group names halo (fluoro, chloro, bromo, and iodo) and nitro, respectively.

Table 7.3 Parent Compounds, Benzene Series

Priority	Parent	Name	
1		benzoic acid	<b>ACIDO BENZOICO</b>
2		alkyl benzoate	<b>ALCHIL BENZOATO</b>
3		benzenesulfonic acid	<b>ACIDO BENZENSOLFONICO</b>
4		benzoyl halide	<b>BENZOIL ALOGENURO</b>
5		acetanilide	<b>ACETANILIDE</b>
6		benzamide	<b>BENZAMIDE</b>
7		benzaldehyde	<b>BENZALDEIDE</b>
8		benzonitrile	<b>BENZONITRILE</b>
9		<i>p</i> -cresol, <i>m</i> -cresol, <i>o</i> -cresol	<b>P-CRESOLO, M-CRESOLO, O-CRESOLO</b>
10		phenol	<b>FENOLO</b>
11		<i>p</i> -toluidine, <i>m</i> -toluidine, <i>o</i> -toluidine	<b>P-TOLUIDINA, M-TOLUIDINA, O-TOLUIDINA</b>
12		aniline	<b>ANILINA</b>
13		<i>p</i> -xylene, <i>m</i> -xylene, <i>o</i> -xylene	<b>P- XILENE, M-XILENE, O-XILENE</b>
14		toluene	<b>TOLUENE</b>
15		benzene	<b>BENZENE</b>

