

Suffixes and prefixes for some important characteristic groups in substitutive nomenclature

Functional Group	Condensed Formula	Prefix	Suffix
Acid halides	-CO-halogen -C(=O)-halogen	halocarbonyl- ---	-carbonyl halide -oyl halide
Alcoholates, Phenolates	-O ⁻	oxido-	-olate
Alcohols, Phenols	-OH	hydroxy-	-ol
Aldehydes	-CHO -C(=O)H	formyl- oxo-	-carbaldehyde -al
Amides	-CONH ₂ -C(=O)NH ₂	carbamoyl- ---	-carboxamide -amide
Amines	-NH ₂	amino-	-amine
Carboxylates	-COO ⁻ or -CO ₂ ⁻ -C(=O)O ⁻	carboxylato- ---	-carboxylate -oate
Carboxylic acids	-COOH or -CO ₂ H -C(=O)OH	carboxy- ---	-carboxylic acid -oic acid
Ethers	-OR	(R)-oxy-	---
Esters (of carboxylic acids)	-COOR or -CO ₂ R -C(=O)OR	(R)-oxycarbonyl- ---	(R)...carboxylate (R)...oate
Hydroperoxides	-OOH	hydroperoxy-	---
Ketones	RCOR RC(=O)R	oxo- ---	-one ---
Nitriles	-CN -C≡N	cyano- ---	-carbonitrile -nitrile
Peroxides	-OOR	(R)-peroxy-	---
Salts (of carboxylic acids)	-COO ⁻ M ⁺ or -CO ₂ ⁻ M ⁺ -C(=O)O ⁻ M ⁺	--- ---	(cation) ...carboxylate (cation) ...oate
Sulfides	-SR	(R)-sulfanyl-	---
Sulfonates	-SO ₂ O ⁻ or -SO ₃ ⁻	sulfonato-	-sulfonate
Sulfonic acid	-SO ₂ OH or -SO ₃ H	sulfo-	-sulfonic acid
Thiolates	-S ⁻	sulfido-	-thiolate
Thiols	-SH	sulfanyl-	-thiol

Basic numerical terms (multiplying affixes)

Number	Numerical term	Number	Numerical term
1	mono-	90	nonaconta-
2	di-	100	hecta-
3	tri-	200	dicta-
4	tetra-	300	tricta-
5	penta-	400	tetracta-
6	hexa-	500	pentacta-
7	hepta-	600	hexacta-
8	octa-	700	heptacta-
9	nona-	800	octacta-
10	deca-	900	nonacta-
11	undeca-	1000	kilia-
12	dodeca-	2000	dilia-
20	icosa-	3000	trilia-
30	triaconta-	4000	tetralia-
40	tetraconta-	5000	pentalia-
50	pentaconta-	6000	hexalia-
60	hexaconta-	7000	heptalia-
70	heptaconta-	8000	octalia-
80	octaconta-	9000	nonalia-

**General classes of compounds in decreasing order of priority
for choosing and naming a principal characteristic group (the official list)**

- 1 Carboxylic Acids
- 2 Anhydrides
- 3 Esters
- 4 Acid halides
- 5 Amides
- 6 Nitriles
- 7 Aldehydes
- 8 Ketones
- 9 Alcohols and Phenols
- 10 Hydroperoxides
- 11 Amines
- 12 Hydrazines, Phosphanes, etc.
- 13 Alkynes (only priority in numbering – follows “en-yne” rule)
- 14 Alkenes
- 15 Ethers followed by Sulfides
- 16 Peroxides followed by Disulfides