NOMENCLATURE FOR INORGANIC IONS AND LIGANDS

Willem H. Koppenol

The entries below were selected from Table IX of Connelly, N. G., Damhus, T., Hartshorn, R. M. and Hutton, A. T., Eds., *Nomenclature of Inorganic Chemistry. IUPAC Recommendations 2005*, The Royal Society of Chemistry, 2005. Two changes were made: in the case of the hypohalides, the oxidohalogenate names are listed, not the new halooxygenate names. Thus, for BrO^- the still acceptable name "oxidobromate(1−)" is listed, not the more correct, but less palatable, "bromooxygenate(1−)". Similarly, and for reasons of consistency, $ClO^\bullet$ is not named oxygen (mono)chloride, but chlorine mono(o)oxide. The symbol '⁀' is used for dividing names when this is made necessary by a line break. When the name is reconstructed from the name given in the table, this symbol should be omitted. Thus, all *hyphens* in the table are true parts of the names. The symbols '>' and '<' placed next to an element symbol both denote two single bonds connecting the atom in question to two other atoms. For a given compound, the various systematic names, if applicable, are given in the order: stoichiometric names, substitutive names, additive names and hydrogen names. Acceptable names which are not entirely systematic (or not formed according to any of the systems mentioned above) are given at the end after a semicolon. No order of preference is implied by the order in which formulae and names are listed. Reprinted by permission of IUPAC.

Formula for uncharged atom or group	**Name**			
	Uncharged atoms or molecules (including zwitterions and radicals) or substituent groups[a]	***Cations (including cation radicals) or cationic substituent groups***[a]	***Anions (including anion radicals) or anionic substituent groups***[b]	***Ligands***[c]
H	hydrogen $H^\bullet$, hydrogen(•), monohydrogen (natural or unspecified isotopic composition) $^1H^\bullet$, protium(•), monoprotium $^2H^\bullet = D^\bullet$, deuterium(•), monodeuterium $^3H^\bullet = T^\bullet$, tritium(•), monotritium	hydrogen (general) H^+, hydrogen(1+), hydron (natural or unspecified isotopic composition) $^1H^+$, protium(1+), proton $^2H^+ = D^+$, deuterium(1+), deuteron $^3H^+ = T^+$, tritium(1+), triton	hydride (general) H^-, hydride (natural or unspecified isotopic composition) $^1H^-$, protide $^2H^- = D^-$, deuteride $^3H^- = T^-$, tritide	hydrido protido deuterido tritido
H_2	H_2, dihydrogen D_2, dideuterium T_2, ditritium	$H_2^{\bullet+}$, dihydrogen(•1+) $^1H_2^{\bullet+}$, diprotium(•1+) $D_2^{\bullet+}$, dideuterium(•1+) $T_2^{\bullet+}$, ditritium(•1+)		
D, see H				
D_2, see H_2				
T, see H				
T_2, see H_2				
F	fluorine $F^\bullet$, fluorine(•), monofluorine −F, fluoro	fluorine (general) F^+, fluorine(1+)	fluoride (general) F^-, fluoride(1−); fluoride	fluorido (general) F^-, fluorido(1−); fluorido
F_2	F_2, difluorine	$F_2^{\bullet+}$, difluorine(•1+)	$F_2^{\bullet-}$, difluoride(•1−)	F_2, difluorine
Cl	chlorine (general) $Cl^\bullet$, chlorine(•), monochlorine −Cl, chloro	chlorine (general) Cl^+, chlorine(1+)	chloride (general) Cl^-, chloride(1−); chloride	chlorido (general) Cl^-, chlorido(1−); chlorido
Cl_2	Cl_2, dichlorine	$Cl_2^{\bullet+}$, dichlorine(•1+)	$Cl_2^{\bullet-}$, dichloride(•1−)	Cl_2, dichlorine $Cl_2^{\bullet-}$, dichlorido(•1−)
Br	bromine (general) $Br^\bullet$, bromine(•), monobromine −Br, bromo	bromine (general) Br^+, bromine(1+)	bromide (general) Br^-, bromide(1−); bromide	bromido (general) Br^-, bromido(1−); bromido
Br_2	Br_2, dibromine	$Br_2^{\bullet+}$, dibromine(•1+)	$Br_2^{\bullet-}$, dibromide(•1−)	Br_2, dibromine
I	iodine (general) $I^\bullet$, iodine(•), monoiodine −I, iodo	iodine (general) I^+, iodine(1+)	iodide (general) I^-, iodide(1−); iodide	iodido (general) I^-, iodido(1−); iodido
I_2	I_2, diiodine	$I_2^{\bullet+}$, diiodine(•1+)	$I_2^{\bullet-}$, diiodide(•1−)	I_2, diiodine

ClO	ClO, chlorine mon(o)oxide $ClO^{\bullet}$, oxidochlorine(•); chlorosyl –ClO, oxo-λ^3-chloranyl; chlorosyl –OCl, chlorooxy		ClO^-, oxidochlorate(1–); hypochlorite	ClO^-, oxidochlorato(1–); hypochlorito
ClO_2	ClO_2, chlorine dioxide $ClO_2^{\bullet}$, dioxidochlorine(•) $ClOO^{\bullet}$, chloridodioxygen ⊂⊃ (*O–O*) (•), –ClO_2, dioxo-λ^5-chloranyl; chloryl –OClO, oxo-λ^3-chloranyloxy	ClO_2^+, dioxidochlorine(1+) (*not* chloryl)	ClO_2^-, dioxidochlorate(1–); chlorite	ClO_2^-, dioxidochlorato(1–); chlorito
ClO_3	ClO_3, chlorine trioxide $ClO_3^{\bullet}$, trioxidochlorine(•) –ClO_3, trioxo-λ^7-chloranyl; perchloryl –$OClO_2$, dioxo-λ^5-chloranyloxy	ClO_3^+, trioxidochlorine(1+) (*not* perchloryl)	ClO_3^-, trioxidochlorate(1–); chlorate	ClO_3^-, trioxidochlorato(1–); chlorato
ClO_4	ClO_4, chlorine tetraoxide $ClO_4^{\bullet}$, tetraoxidochlorine(•) –$OClO_3$, trioxo-λ^7-chloranyloxy		ClO_4^-, tetraoxidochlorate(1–); perchlorate	ClO_4^-, tetraoxidochlorato(1–); perchlorato
IO	IO, iodine mon(o)oxide $IO^{\bullet}$, oxidoiodine(•); iodosy l –IO, oxo-λ^3-iodanyl; iodosyl –OI, iodooxy	IO^+, oxidoiodine(1+) (*not* iodosyl)	IO^-, oxidoiodate(1–); hypoiodite $IO^{\bullet 2-}$, oxidoiodate(•2–)	IO^-, oxidoiodato(1–); hypoiodito
IO_2	IO_2, iodine dioxide $IO_2^{\bullet}$, dioxidoiodine(•) –IO_2, dioxo-λ^5-iodanyl; iodyl –OIO, oxo-λ^3-iodanyloxy	IO_2^+, dioxidoiodine(1+) (*not* iodyl)	IO_2^-, dioxidoiodate(1–); iodite	IO_2^-, dioxidoiodato(1–); iodito
IO_3	IO_3, iodine trioxide $IO_3^{\bullet}$, trioxidoiodine(•) –IO^3, trioxo-λ^7-iodanyl; periodyl –OIO_2, dioxo-λ^5-iodanyloxy	IO_3^+, trioxidoiodine(1+) (*not* periodyl)	IO_3^-, trioxidoiodate(1–); iodate	IO_3^-, trioxidoiodato(1–); iodato
IO_4	IO_4, iodine tetraoxide $IO_4^{\bullet}$, tetraoxidoiodine(•) –OIO_3, trioxo-λ^7-iodanyloxy		IO_4^-, tetraoxidoiodate(1–); periodate	IO_4^-, tetraoxidoiodato(1–); periodato
O	oxygen (general) O, monooxygen $O^{2\bullet}$, oxidanylidene, monooxygen(2•) >O, oxy, epoxy (in rings) =O, oxo	oxygen (general) $O^{\bullet+}$, oxygen(•1+)	oxide (general) $O^{\bullet-}$, oxidanidyl, oxide(•1–) O^{2-}, oxide(2–); oxide –O^-, oxido	O^{2-}, oxido
O_2	O_2, dioxygen $O_2^{2\bullet}$, dioxidanediyl, dioxygen(2•) –OO–, dioxidanediyl; peroxy	$O_2^{\bullet+}$, dioxidanyliumyl, dioxygen(•1+) O_2^{2+}, dioxidanebis(ylium), dioxygen(2+)	$O_2^{\bullet-}$, dioxidanidyl, dioxide(•1–); superoxide (*not* hyperoxide) O_2^{2-}, dioxidanediide, dioxide(2–); peroxide	dioxido (general) O_2, dioxygen $O_2^{\bullet-}$, dioxido(•1–); superoxido O_2^{2-}, dioxidanediido, dioxido(2–); peroxido
O_3	O_3, trioxygen; ozone –OOO–, trioxidanediyl		$O_3^{\bullet-}$, trioxidanidyl, trioxide(•1–); ozonide	O_3, trioxygen; ozone $O_3^{\bullet-}$, trioxido(•1–); ozonido
HO	$HO^{\bullet}$, oxidanyl, hydridooxygen(•); hydroxyl –OH, oxidanyl; hydroxy	HO^+, oxidanylium, hydridooxygen(1+); hydroxylium	HO^-, oxidanide, hydroxide	HO^-, oxidanido; hydroxido
HO_2	$HO_2^{\bullet}$, dioxidanyl, hydridodioxygen(•) hydrogen dioxide –OOH, dioxidanyl; hydroperoxy	HO_2^+, dioxidanylium, hydridodioxygen(1+)	HO_2^-, dioxidanide, hydrogen(peroxide)(1–)	HO_2^-, dioxidanido, hydrogen(peroxido)(1–)
S	sulfur (general) S, monosulfur =S, sulfanylidene; thioxo –S–, sulfanediyl	sulfur (general) S^+, sulfur(1+)	sulfide (general) $S^{\bullet-}$, sulfanidyl, sulfide(•1–) S^{2-}, sulfanediide, sulfide(2–); sulfide –S^-, sulfido	sulfido (general) $S^{\bullet-}$, sulfanidyl, sulfido(•1–) S^{2-}, sulfanediido, sulfido(2–)

S_2	S_2, disulfur −SS−, disulfanediyl >S=S, sulfanylidene-λ^4-sulfanediyl; sulfinothioyl	$S_2^{\bullet+}$, disulfur(•1+)	$S_2^{\bullet-}$, disulfanidyl, disulfide(•1−) S_2^{2-}, disulfide(2−), disulfanediide −SS^-, disulfanidyl	S_2^{2-}, disulfido(2−), disulfanediido
HS	$HS^{\bullet}$, sulfanyl, hydridosulfur(•) −SH, sulfanyl	HS^+, sulfanylium, hydridosulfur(1+)	HS^-, sulfanide, hydrogen(sulfide)(1−)	HS^-, sulfanido, hydrogen(sulfido)(1−)
SO	SO, sulfur mon(o)oxide [SO], oxidosulfur >SO, oxo-λ^4-sulfanediyl; sulfinyl	$SO^{\bullet+}$, oxidosulfur(•1+) *(not* sulfinyl or thionyl)	$SO^{\bullet-}$, oxidosulfate(•1−)	[SO], oxidosulfur
SO_2	SO_2, sulfur dioxide [SO_2], dioxidosulfur >SO_2, dioxo-λ^6-sulfanediyl; sulfuryl, sulfonyl		$SO_2^{\bullet-}$, dioxidosulfate(•1−) SO_2^{2-}, dioxidosulfate(2−), sulfanediolate	[SO_2], dioxidosulfur SO_2^{2-}, dioxidosulfato(2−), sulfanediolato
SO_3	SO_3, sulfur trioxide		$SO_3^{\bullet-}$, trioxidosulfate(•1−) SO_3^{2-}, trioxidosulfate(2−); sulfite $-S(O)_2(O^-)$, oxidodioxo-λ^6-sulfanyl; sulfonato	SO_3^{2-}, trioxidosulfato(2−); sulfito
SO_4	$-OS(O)_2O-$, sulfonylbis(oxy)		$SO_4^{\bullet-}$, tetraoxidosulfate(•1−) SO_4^{2-}, tetraoxidosulfate(2−); sulfate	SO_4^{2-}, tetraoxidosulfato(2−); sulfato
S_2O_3			$S_2O_3^{\bullet-} = SO_3S^{\bullet-}$, trioxido-1$\kappa^3$*O*-disulfate(*S*–*S*)(•1−), trioxidosulfidosulfate(•1−) $S_2O_3^{2-} = SO_3S^{2-}$, trioxido-1κ^3*O*-disulfate(*S*–*S*)(2−), trioxidosulfidosulfate(2−); thiosulfate, sulfurothioate	$S_2O_3^{2-} = SO_3S^{2-}$, trioxido-1κ^3*O*-disulfato(*S*–*S*)(2−), trioxidosulfidosulfato(2−); thiosulfato, sulfurothioato
Se	Se (general) Se, monoselenium >Se, selanediyl =Se, selanylidene; selenoxo	selenium	selenide (general) $Se^{\bullet-}$, selanidyl, selenide(•1−) Se^{2-}, selanediide, selenide(2−); selenide	selenido (general) $Se^{\bullet-}$, selanidyl, selenido(•1−) Se^{2-}, selanediido, selenido(2−)
SeO	SeO, selenium mon(o)oxide [SeO], oxidoselenium >SeO, seleninyl			[SeO], oxidoselenium
SeO_2	SeO_2, selenium dioxide [SeO_2], dioxidoselenium >SeO_2, selenonyl		SeO_2^{2-}, dioxidoselenate(2−)	[SeO_2], dioxidoselenium SeO_2^{2-}, dioxidoselenato(2−)
SeO_3	SeO_3, selenium trioxide		$SeO_3^{\bullet-}$, trioxidoselenate(•1−) SeO_3^{2-}, trioxidoselenate(2−); selenite	SeO_3^{2-}, trioxidoselenato(2−); selenito
SeO_4			SeO_4^{2-}, tetraoxidoselenate(2−); selenate	SeO_4^{2-}, tetraoxidoselenato(2−); selenato
Te	tellurium >Te, tellanediyl =Te, tellanylidene; telluroxo	tellurium	telluride (general) $Te^{\bullet-}$, tellanidyl, telluride(•1−) Te^{2-}, tellanediide, telluride(2−); telluride	tellurido (general) $Te^{\bullet-}$, tellanidyl, tellurido(•1−) Te^{2-}, tellanediido, tellurido(2−)
CrO_2	CrO_2, chromium dioxide, chromium(IV) oxide			
UO_2	UO_2, uranium dioxide	UO_2^+, dioxidouranium(1+) [*not* uranyl(1+)] UO_2^{2+}, dioxidouranium(2+) [*not* uranyl(2+)]		

NpO_2	NpO_2, neptunium dioxide	NpO_2^+, dioxidoneptunium(1+) [*not* neptunyl(1+)] NpO_2^{2+}, dioxidoneptunium(2+) [*not* neptunyl(2+)]		
PuO_2	PuO_2, plutonium dioxide	PuO_2^+, dioxidoplutonium(1+) [not plutonyl(1+)] PuO_2^{2+}, dioxidoplutonium(2+) [not plutonyl (2+)]		
N	nitrogen $N^\bullet$, nitrogen(●), mononitrogen –N<, azanetriyl; nitrilo –N=, azanylylidene ≡N, azanylidyne	nitrogen (general) N^+, nitrogen(1+)	nitride (general) N^{3-}, nitride(3–), azanetriide; nitride $=N^-$, azanidylidene; amidylidene $–N^{2-}$, azanediidyl	N^{3-}, nitrido(3–), azanetriido
N_2	N_2, dinitrogen $=N^+=N^-$, (azanidylidene)azaniumylidene; diazo –N=N–, diazane-1,2-diylidene; hydrazinediylidene =NN=, diazene-1,2-diyl; azo	$N_2^{\bullet+}$, dinitrogen(1+) N_2^{2+}, dinitrogen(2+) $–N^+\equiv N$, diazyn-1-ium-1-yl	N_2^{2-}, dinitride(2–) N_2^{4-}, dinitride(4–), diazanetetraide; hydrazinetetraide	N_2, dinitrogen N_2^{2-}, dinitrido(2–) N_2^{4-}, dinitrido(4–), diazanetetraido; hydrazinetetraido
N_3	$N_3^\bullet$, trinitrogen(●) $–N=N^+=N^-$, azido		N_3^-, trinitride(1–); azide	N_3^-, trinitrido(1–); azido
NH	$NH^{2\bullet}$, azanylidene, hydridonitrogen(2●); nitrene >NH, azanediyl =NH, azanylidene; imino	NH^+, azanyliumdiyl, hydridonitrogen(1+) NH^{2+}, azanebis(ylium), hydridonitrogen(2+)	NH^-, azanidyl, hydridonitrate(1–) NH^{2-}, azanediide, hydridonitrate(2–); imide $–NH^-$, azanidyl; amidyl	NH^{2-}, azanediido, hydridonitrato(2–); imido
NH_2	$NH_2^\bullet$, azanyl, dihydridonitrogen(●); aminyl $–NH_2$, azanyl; amino	NH_2^+, azanylium, dihydridonitrogen(1+)	NH_2^-, azanide, dihydridonitrate(1–); amide	NH_2^-, azanido, dihydridonitrato(1–), amido
NH_3	NH_3, azane (parent hydride name), amine (parent name for certain organic derivatives), trihydridonitrogen; ammonia	$NH_3^{\bullet+}$, azaniumyl, trihydridonitrogen(●1+) $–NH_3^+$, azaniumyl; ammonio	$NH_3^{\bullet-}$, azanuidyl, trihydridonitrate(●1–)	NH_3, ammine
NH_4	$NH_4^\bullet$, λ^5-azanyl, tetrahydridonitrogen(●)	NH_4^+, azanium; ammonium		
H_2NO	$H_2NO^\bullet$, aminooxidanyl, dihydridooxidonitrogen(●); aminoxyl $HONH^\bullet$, hydroxyazanyl, hydridohydroxidonitrogen(●) –NH(OH), hydroxyazanyl, hydroxyamino $–ONH_2$, aminooxy $–NH_2(O)$, oxo-λ^5-azanyl; azinoyl		$HONH^-$, hydroxyazanide, hydridohydroxidonitrate(1–) H_2NO^-, azanolate, aminooxidanide, dihydridooxidonitrate(1–)	$NHOH^-$, hydroxyazanido, hydridohydroxidonitrato(1–) H_2NO^-, azanolato, aminooxidanido, dihydridooxidonitrato(1–)
N_2H_2	HN=NH, diazene $^-N=NH_2^+$, diazen-2-ium-1-ide $H_2NN^{2\bullet}$, diazanylidene, hydrazinylidene $=NNH_2$, diazanylidene; hydrazinylidene $^\bullet HNNH^\bullet$, diazane-1,2-diyl; hydrazine-1,2-diyl –HNNH–, diazane-1,2-diyl; hydrazine-1,2-diyl	$HNNH^{2+}$, diazynediium	$HNNH^{2-}$, diazane-1,2-diide, hydrazine-1,2-diide H_2NN^{2-}, diazane-1,1-diide, hydrazine-1,1-diide	HN=NH, diazene $^-N=NH_2^+$, diazen-2-ium-1-ido $HNNH^{2-}$, diazane-1,2-diido, hydrazine-1,2-diido H_2NN^{2-}, diazane-1,1-diido, hydrazine-1,1-diido

N_2H_3	$H_2NNH^{\bullet}$, diazanyl, trihydrido⌒dinitrogen(*N*–*N*)(•); hydrazinyl –$NHNH_2$, diazanyl; hydrazinyl $^{2-}NNH_3^+$, diazan-2-ium-1,1-diide	$H_2N{=}NH^+$, diazenium	H_2NNH^-, diazanide, hydrazinide	$^{2-}NNH_3^+$, diazan-2-ium-1,1-diido H_2NNH^-, diazanido, hydrazinido
N_2H_4	H_2NNH_2, diazane (parent hydride name), hydrazine (parent name for organic derivatives) $^-NHNH_3^+$, diazan-2-ium-1-ide	$H_2NNH_2^{\bullet+}$, diazaniumyl, bis(dihydridonitrogen)⌒(*N*–*N*)(•1+); hydraziniumyl $H_2N{=}NH_2^{2+}$, diazenediium		H_2NNH_2, diazane, hydrazine $^-NHNH_3^+$, diazan-2-ium-1-ido
NO	NO, nitrogen mon(o)oxide (*not* nitric oxide) $NO^{\bullet}$, oxoazanyl, oxidonitrogen(•); nitrosyl –N=O, oxoazanyl; nitroso >$N(O)^-$, oxo-λ^5-azanyl; azoryl =$N(O)^-$, oxo-λ^5-azanylidene; azorylidene ≡N(O), oxo-λ^5-azanylidyne; azorylidyne $-O^+{=}N^-$, azanidylideneoxidaniumyl	NO^+, oxidonitrogen(1+) (*not* nitrosyl) $NO^{\bullet 2+}$, oxidonitrogen(2+)	NO^-, oxidonitrate(1–) $NO^{(2\bullet)-}$, oxidonitrate(2•1–)	NO, oxidonitrogen (general); nitrosyl = oxidonitrogen-κ*N* (general) NO^+, oxidonitrogen(1+) NO^-, oxidonitrato(1–)
NO_2	NO_2, nitrogen dioxide $NO_2^{\bullet}$ = $ONO^{\bullet}$, nitrosooxidanyl, dioxidonitrogen(•); nitryl –NO_2, nitro –ONO, nitrosooxy	NO_2^+, dioxidonitrogen(1+) (*not* nitryl)	NO_2^-, dioxidonitrate(1–); nitrite $NO_2^{\bullet 2-}$, dioxidonitrate(•2–)	NO_2^-, dioxidonitrato(1–); nitrito $NO_2^{\bullet 2-}$, dioxidonitrato(•2–)
NO_3	NO_3, nitrogen trioxide $NO_3^{\bullet}$ = $O_2NO^{\bullet}$, nitrooxidanyl, trioxidonitrogen(•) $ONOO^{\bullet}$, nitrosodioxidanyl, (dioxido)oxidonitrogen(•) –ONO_2, nitrooxy		NO_3^-, trioxidonitrate(1–); nitrate $NO_3^{\bullet 2-}$, trioxidonitrate(•2–) $[NO(OO)]^-$, (dioxido)oxidonitrate(1–); peroxynitrite	NO_3^-, trioxidonitrato(1–); nitrato $NO_3^{\bullet 2-}$, trioxidonitrato(•2–) $[NO(OO)]^-$, oxidoperoxidonitrato(1–); peroxynitrito
N_2O	N_2O, dinitrogen oxide (*not* nitrous oxide) NNO, oxidodinitrogen(*N*—*N*) –N(O)=N–, azoxy		$N_2O^{\bullet -}$, oxidodinitrate(•1–)	N_2O, dinitrogen oxide (general) NNO, oxidodinitrogen(*N*—*N*) $N_2O^{\bullet -}$, oxidodinitrato(•1–)
N_2O_3	N_2O_3, dinitrogen trioxide O_2NNO, trioxido-1κ^2*O*,2κ*O*-dinitrogen(*N*–*N*) $NO^+NO_2^-$, oxidonitrogen(1+) dioxidonitrate(1–) ONONO, dinitrosooxidane, μ-oxidobis(oxidonitrogen)		$N_2O_3^{2-}$ = $[O_2NNO]^{2-}$, trioxido-1κ$_2$*O*,2κ*O*-dinitrate(*N*–*N*)(2–)	
N_2O_4	N_2O_4, dinitrogen tetraoxide O_2NNO_2, bis(dioxidonitrogen)⌒(*N*–*N*) ONOONO, 1,2-dinitrosodioxidane, 2,5-diazy-1,3,4,6-tetraoxy-[6]catena $NO^+NO_3^-$, oxidonitrogen(1+) trioxidonitrate(1–)			
N_2O_5	N_2O_5, dinitrogen pentaoxide O_2NONO_2, dinitrooxidane, $NO_2^+NO_3^-$, dioxidonitrogen(1+) trioxidonitrate(1–)			
NS	NS, nitrogen monosulfide $NS^{\bullet}$, sulfidonitrogen(•) –N=S, sulfanylideneazanyl; thionitroso	NS^+, sulfidonitrogen(1+) (*not* thionitrosyl)	NS^-, sulfidonitrate(1–)	NS, sulfidonitrogen, sulfidonitrato, thionitrosyl (general) NS^+, sulfidonitrogen(1+) NS^-, sulfidonitrato(1–)

P	phosphorus (general) P•, phosphorus(•), monophosphorus >P–, phosphanetriyl	phosphorus (general) P^{+}, phosphorus(1+)	phosphide (general) P^{-}, phosphide(1–) P^{3-}, phosphide(3–), phosphanetriide; phosphide	P^{3-}, phosphido, phosphanetriido
PO	PO•, oxophosphanyl, oxidophosphorus(•), phosphorus mon(o)oxide; phosphoryl >P(O)–, oxo-λ^5-phosphanetriyl; phosphoryl =P(O)–, oxo-λ^5-phosphanylidene; phosphorylidene ≡P(O), oxo-λ^5-phosphanylidyne; phosphorylidyne	PO^{+}, oxidophosphorus(1+) (*not* phosphoryl)	PO^{-}, oxidophosphate(1–)	
PO_2	–$P(O)_2$, dioxo-λ^5-phosphanyl		PO_2^{-}, dioxidophosphate(1–)	PO_2^{-}, dioxidophosphato(1–)
PO_3			PO_3^{-}, trioxidophosphate(1–) $PO_3^{\bullet 2-}$, trioxidophosphate(•2–) PO_3^{3-}, trioxidophosphate(3–); phosphite $(PO_3^{-})_n = (P(O)_2O)_n^{n-}$, *catena*-poly[(dioxidophosphate-μ-oxido)(1–)]; metaphosphate –P(O)$(O^{-})_2$, dioxidooxo-λ^5-phosphanyl; phosphonato	PO_3^{-}, trioxidophosphato(1–) $PO_3^{\bullet 2-}$, trioxidophosphato(•2–) PO_3^{3-}, trioxidophosphato(3–); phosphito
PO_4			$PO_4^{\bullet 2-}$, tetraoxidophosphate(•2–) PO_4^{3-}, tetraoxidophosphate(3–); phosphate	PO_4^{3-}, tetraoxidophosphato(3–); phosphato
PS	PS•, sulfidophosphorus(•); –PS, thiophosphoryl	PS^{+}, sulfidophosphorus(1+) (*not* thiophosphoryl)		
AsO_3			AsO_3^{3-}, trioxidoarsenate(3–); arsenite, arsorite –As(=O)$(O^{-})_2$, dioxidooxo-λ^5-arsanyl; arsonato	AsO_3^{3-}, trioxidoarsenato(3–); arsenito, arsorito
AsO_4			AsO_4^{3-}, tetraoxidoarsenate(3–); arsenate, arsorate	AsO_4^{3-}, tetraoxidoarsenato(3–); arsenato, arsorato
VO	VO, vanadium(II) oxide, vanadium mon(o)oxide	VO^{2+}, oxidovanadium(2+) (*not* vanadyl)		
CO	CO, carbon mon(o)oxide >C=O, carbonyl =C=O, carbonylidene	$CO^{\bullet +}$, oxidocarbon(•1+) CO^{2+}, oxidocarbon(2+)	$CO^{\bullet -}$, oxidocarbonate(•1–)	CO, oxidocarbon, oxidocarbonato (general); carbonyl = oxidocarbon-κ*C* (general) $CO^{\bullet +}$, oxidocarbon(•1+) $CO^{\bullet -}$, oxidocarbonato(•1–)
CO_2	CO_2, carbon dioxide, dioxidocarbon		$CO_2^{\bullet -}$, oxidooxomethyl, dioxidocarbonate(•1–)	CO_2, dioxidocarbon $CO_2^{\bullet -}$, oxidooxomethyl, dioxidocarbonato(•1–)
CO_3			$CO_3^{\bullet -}$, trioxidocarbonate(•1–), $OCOO^{\bullet -}$, (dioxido)oxidocarbonate(•1–), oxidoperoxidocarbonate(•1–) CO_3^{2-}, trioxidocarbonate(2–); carbonate	CO_3^{2-}, trioxidocarbonato(2–); carbonato
CS	carbon monosulfide >C=S, carbonothioyl; thiocarbonyl =C=S, carbonothioylidene	$CS^{\bullet +}$, sulfidocarbon(•1+)	$CS^{\bullet -}$, sulfidocarbonate(•1–)	CS, sulfidocarbon, sulfidocarbonato, thiocarbonyl (general); $CS^{\bullet +}$, sulfidocarbon(•1+) $CS^{\bullet -}$, sulfidocarbonato(•1–)
CS_2	CS_2, disulfidocarbon, carbon disulfide		$CS_2^{\bullet -}$, sulfidothioxomethyl, disulfidocarbonate(•1–)	CS_2, disulfidocarbon $CS_2^{\bullet -}$, sulfidothioxomethyl, disulfidocarbonato(•1–)

CN	$CN^{\bullet}$, nitridocarbon(•); cyanyl –CN, cyano –NC, isocyano	CN^{+}, azanylidynemethylium, nitridocarbon(1+)	CN^{-}, nitridocarbonate(1–); cyanide	nitridocarbonato (general) CN^{-}, nitridocarbonato(1–); cyanido = [nitridocarbonato(1–)-κ*C*]
CNO	$OCN^{\bullet}$, nitridooxidocarbon(•) –OCN, cyanato –NCO, isocyanato –ONC, λ^2-methylidene ⊃ azanylylideneoxy –CNO, (oxo-λ^5-azanylidynemethyl		OCN^{-}, nitridooxidocarbonate(1–); cyanate ONC^{-}, carbidooxidonitrate(1–); fulminate $OCN^{\bullet 2-}$, nitridooxidocarbonate(•2–)	OCN^{-}, nitridooxidocarbonato(1–); cyanato ONC^{-}, carbidooxidonitrato(1–); fulminato
CNS	$SCN^{\bullet}$, nitridosulfidocarbon(•) –SCN, thiocyanato –NCS, isothiocyanato –SNC, λ^2-methylidene ⊃ azanylylidenesulfanediyl –CNS, (sulfanylidene-λ^5-azanylidynemethyl		SCN^{-}, nitridosulfidocarbonate(1–); thiocyanate SNC^{-}, carbidosulfidonitrate(1–)	SCN^{-}, nitridosulfidocarbonato(1–); thiocyanato SNC^{-}, carbidosulfidonitrato(1–)
CNSe	$SeCN^{\bullet}$, nitridoselenidocarbon(•) –SeCN, selenocyanato –NCSe, isoselenocyanato –SeNC, λ^2-methylidene ⊃ azanylylideneselanediyl –CNSe, (selanylidene-λ^5-azanylidynemethyl		$SeCN^{-}$, nitridoselenidocarbonate(1–); selenocyanate $SeNC^{-}$, carbidoselenidonitrate(1–)	$SeCN^{-}$, nitridoselenidocarbonato(1–); selenocyanato $SeNC^{-}$, carbidoselenidonitrato(1–)

[a] Where an element symbol occurs in the first column, the unmodified element name is listed in the second and third columns. The unmodified name is generally used when the element appears as an electropositive constituent in the construction of a stoichiometric name (Sections IR-5.2 and IR-5.4). Names of homoatomic cations consisting of the element are also constructed using the element name, adding multiplicative prefixes and charge numbers as applicable (Sections IR-5.3.2.1 to IR-5.3.2.3). The sections mentioned refer to parts of Nomenclature of Inorganic Chemistry. IUPAC Recommendations 2005, see above.

[b] Where an element symbol occurs in the first column, the fourth column gives the element name appropriately modified with the ending 'ide' (hydride, nitride, etc.). The 'ide' form of the element name is generally used when the element appears as an electronegative constituent in the construction of a stoichiometric name (Sections IR-5.2 and IR-5.4). Names of homoatomic anions consisting of the element in question are also constructed using this modified form, adding multiplicative prefixes and charge numbers as applicable (Sections IR-5.3.3.1 to IR-5.3.3.3). Examples are given in the Table of names of some specific anions, e.g. chloride(1–), oxide(2–), dioxide(2–). In certain cases, a particular anion has the 'ide' form itself as an accepted short name, e.g. chloride, oxide. If specific anions are named, the 'ide' form of the element name with no further modification is given as the first entry in the fourth column, with the qualifier '(general)'. The sections mentioned refer to parts of Nomenclature of Inorganic Chemistry. IUPAC Recommendations 2005, see above.

[c] Ligand names must be placed within enclosing marks whenever necessary to avoid ambiguity, cf. Section IR-9.2.2.3. Some ligand names must always be enclosed. For example, if 'dioxido' is cited as is, it must be enclosed so as to distinguish it from two 'oxido' ligands; if combined with a multiplicative prefix it must be enclosed because it starts with a multiplicative prefix itself. A ligand name such as 'nitridocarbonato' must always be enclosed to avoid interpreting it as two separate ligand names, 'nitrido' and 'carbonato'. In this table, however, these enclosing marks are omitted for the sake of clarity. Note that the ligand names given here with a charge number can generally also be used without if it is not desired to make any implication regarding the charge of the ligand. For example, the ligand name '[dioxido(•1–)]' may be used if one wishes explicitly to consider the ligand to be the species dioxide(•1–), whereas the ligand name '(dioxido)' can be used if no such implications are desirable. The section mentioned refer to parts of Nomenclature of Inorganic Chemistry. IUPAC Recommendations 2005, see above.