IUPAC Handbook, 2004-2005: Specific examples for the section in Appendix IV, "Constructing a Terminology Entry in a Glossary". These should be read in conjunction with the remainder of the section.

These examples are taken from the 'Gold Book 1997' [ref. 1a], and are intended to show how the 'Gold Book' entries may be modified to conform to the directions for constructing a terminology entry without altering their scientific content. In the examples, '[xx]' is [ref. 1a] in the list of references to this Appendix, but note annotation (9) above for future references to the 'Gold Book'.

1 absorptance, α
absorption factor
Absorbed *radiant power* divided by incident radiant power. [xx]
Note: When $\alpha \leq 1, \alpha = A_e$, where A_e is the Napierian absorbance.

2 assay, *n*
measurement (in analytical chemistry)
Set of operations having the object of determining the value of a quantity.(Modified from [xx].)

3 chain-termination reaction
See *termination*.

4 chemiluminescence
Emission of radiation resulting from a chemical reaction.
Note 1. The emitting species may be a reaction *product* or a species excited by energy transfer from an excited reaction product.
Note 2. The excitation may be electronic, vibrational or rotational.
Note 3. If the luminescence occurs in the infrared, the term 'infrared luminescence' is used.
(Modified from [xx].)

5 configuration (electronic)
(Example of homographic term.)

6 configuration (stereochemical)
(Example of homographic term.)

7 counting efficiency
Number of particles or photons counted with a *radiation counter* divided by number of particles or photons of the same type and energy emitted by the radiation *source*. [xx]

8 hydrophilic
'Water-loving'. [Note hyphen in compound adjectives or nouns.]
Note: Describes the capacity of a *molecular entity* or a *substituent* to interact with polar solvents, in particular with water, or with other polar groups. (Modified from [xx].)

9 inclusion compound
inclusion complex

Complex in which one component (the *host*) forms a cavity or, in the case of a crystal, a crystal lattice containing spaces in the shape of long tunnels or channels in which molecular entities of a second *chemical species* (the *guest*) are located.
Note 1: There is no covalent bonding between guest and host, the attraction being generally due to *van der Waals forces*.
Note 2: If the spaces in the host lattice are enclosed on all sides so that the guest species is 'trapped' as in a cage, such compounds are known as *clathrates* or 'cage' compounds.
Examples: See *crown compounds, cryptands, cryptates, intercalation compounds*. (Modified from [xx].)

10 molal
deprecated
Related term: *molality.* (Modified from [xx])

11 Planck constant, *h*
deprecated: Planck's constant
Universal fundamental physical constant $h = 6.626\ 0755\ (40) \times 10^{-34}$ J s or $\hbar = h/2\pi$ $= 1.054\ 572\ 66\ (63) \times 10^{-34}$ J s. The latter is used as *atomic unit of action*.
Note: Energy of electromagnetic radiation, E, and its *frequency*, ν, are related by $E = h\nu$. (Modified from [xx].)

12 thermodynamic isotope effect
equilibrium isotope effect
Effect of isotopic substitution on an equilibrium constant.
Example. The effect of isotopic substitution in reactant A that participates in the equilibrium:

$$A + B \rightleftharpoons C$$

is the ratio K^l/K^h of the equilibrium constant for the reaction in which A contains the light isotope (l) and that for the reaction in which A contains the heavy isotope (h). The ratio can also be expressed as the equilibrium constant for the isotopic exchange reaction:

$$A^l + C^h \rightleftharpoons A^h + C^l$$

in which reactants such as B that are not isotopically substituted do not appear.
Notes: (as in continuation in [xx].)
Related terms: *fractionation factor.* (Modified from [xx].)

13 tracer, generally labelled
See *generally labelled tracer.*
(Example of cross-referenced term.)