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LETTER TO THE EDITORS

IN OUR research school in Glasgow we are much concerned with phase change, and therefore with the metastable states which arise in such processes. We find the many references in the field subject to much confusion from such terminological usage as "superheated" to refer both to vapour and to liquid when at temperatures above the saturation value corresponding to the pressure, and "supercooled" or "subcooled" when the temperature is lower than saturation. At present there is no uniformly accepted terminology to describe qualitatively these different conditions. For our own purpose we recently defined an appropriate system of terminology which we find very helpful, and believe it may commend itself to others.

Briefly the terminology we have adopted consists in specifying that the etymological opposite roots "*super*" and "*sub*" shall always be used to refer to thermodynamically *stable* states, while the different but corresponding etymological opposites "*ultra*" and "*infra*" shall always be used to refer to thermodynamically *metastable* states. Thus we have the following simple reference table:

Temperature in relation to saturation	Vapour	Liquid
$T > T_S$	superheated	ultraheated
$T < T_S$	infracooled	subcooled
$T = T_S$	saturated	saturated

Obviously the same convention can be extended to deal with melting and freezing, and with solution and precipitation. (A simple mnemonic for the convention is the identity of initial letters of super and sub and stable, while there is no identity of initial letter for ultra, infra and metastable!.)

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