Information Sheet #11
Standardised Gemmological Report Wording

Jade and related minerals

Members of the Laboratory Manual Harmonisation Committee (LMHC) have standardised the nomenclature that they use to describe nephrite jade, jadeite jade, omphacite, kosmochlor.

Definitions

Jade is a trade name that encompasses jadeite and nephrite only.

Nephrite is a solid solution of the amphibole group minerals actinolite and tremolite composed of an interlocking mass of fibrous crystals. Its colour commonly ranges from white to deep green, but can also be brown or black. The ideal chemical formula is $Ca_2(Mg,Fe)_5Si_8O_{22}(OH)_2$.

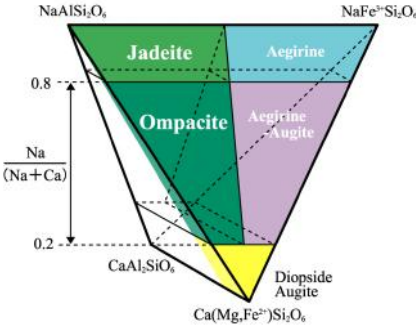
Jadeite is a pyroxene mineral and forms solid solutions with other pyroxene members such as augite and diopside, aegirine, omphacite and kosmochlor. Gem quality called as 'jadeite jade' is not a single crystal but a rock consisting of aggregated fibrous or granular crystals of jadeite and considerable amount of various minerals. Its colour commonly ranges from white through pale green to deep green but can also be blue-green, dark green to black, and other rare colours of pink, lavender varieties. Mineralogically jadeite has ideal chemical formula $NaAlSi_2O_6$.

Omphacite is a member of the pyroxene group with a chemical formula of (Na, Ca) (Al, Mg, Fe) Si_2O_6. Gem quality omphacite displays pale green, deep green, black or nearly colourless varieties.

Kosmochlor is a green chromium and sodium rich pyroxene with the chemical formula $NaCrSi_2O_6$.

Pyroxenes have a solid solution reaction and each coexists or aggregates to make up a rock. See figure 1.

Figure 1. Pyroxene classification by chemical composition



Report wording

Identification
- Group: **Amphibole**
- Species: (**Natural) Actinolite-Tremolite**
- Variety: (*colour*)[2] **Nephrite(jade)**

Identification
- Group: **Pyroxene**
- Species: **(Natural) (Jadeite), (Omphacite), (Kosmochlor)**
- Variety: (*colour*)[2] **(Jadeite(jade)), (Omphacite), (Kosmochlor)**

Further information

Any nephrite-jade, jadeite-jade, omphacite and kosmochlor that does not show indications of having undergone modification through the impregnation with colourless or near colourless[1] wax, resin, or any other agents shall be described as,

- **"None"** *or* **" (Natural colour,) no indications of impregnation"**[4]
  (Known in the trade as / may also be called "A-jade"[Jadeite only])

Any nephrite-jade, jadeite-jade, omphacite and kosmochlor that shows indications of having undergone modification through bleaching and the impregnation with colourless or near colourless[1] wax, resin, or any other agents shall be described as,

- **"(Resin/Wax) Impregnated"**
  (Known in the trade as / may also be called "B-jade"[Jadeite only])

Any nephrite-jade, jadeite-jade, omphacite and kosmochlor that shows indications of having undergone modification through bleaching and the impregnation with coloured resin, or any other coloured agents shall be described as,

- **"Dyed and impregnated"**
  (Known in the trade as / may also be called "B+C-jade"[Jadeite only])

Any nephrite-jade, jadeite-jade, omphacite and kosmochlor that shows indications of having fissures/fractures filled with coloured agents shall be described as,

- **Dyed**
  (Known in the trade as / may also be called "C-jade"[Jadeite only]

[1] Optionally insert the colour of the stone being examined particularly if not described elsewhere on the report.
[1] Optionally insert the colour of the stone being examined particularly if not described elsewhere on the report.
[3] When viewed in bulk, e.g., in a bottle, oils and resins may appear to have colour. However, when viewed in thin films, as in fissures, the appearance may be near colourless.
[4] The presence of light surface waxing need not be declared.
[5] When viewed in bulk, e.g., in a bottle, oils and resins may appear to have colour. However, when viewed in thin films, as in fissures, the appearance may be near colourless.