

## L M H C I n f o r m a t i o n S h e e t # 2

### *Standardised Gemmological Report Wording (implementation February 2004)*

#### **Corundum with colour induced by lattice diffusion**

Members of the Laboratory Manual Harmonization Committee (LMHC) have standardised the nomenclature that they use to describe the lattice diffusion of elements into corundum.

---

#### **Sapphire – indications of heating**

Any sapphire that shows indications of having undergone heating which usually involves the introduction/diffusion of hydrogen, that modifies or creates colour, shall be described as « species » **'natural corundum'**, « variety » **'sapphire'** « comments » **'indications of heating'**.

Note 1: Since the 1970's the heating of blue sapphires has usually involved the addition or removal of hydrogen. During this period the industry designated such stones originally as "natural" and not requiring a declaration of the treatment and later as "enhanced by heat" only. Given this context, LMHC members designate these stones as above.

#### **Corundum – lattice diffusion of foreign elements other than hydrogen**

Any corundum that shows indications of having undergone heating accompanied by the introduction/diffusion of a chemical element(s) (facilitating the modification or creation of colour) from an external source, shall be described as « species » **'natural corundum'**, « variety » **'sapphire' / 'ruby'** « comments » **'indications of heating, (shallow<sup>1</sup>) colour induced by,**

**(lattice) diffusion of a chemical element(s) from an external source'**.

*or*

**the introduction of a chemical element(s) from an external source'**.

<sup>1</sup> Shall be used when the created colour is shallow along with re-cutting caution note

Note 2: wording in parenthesis is optional

Note 3: this clause encompasses the treatment previously described by gemmological laboratories as "surface diffusion".

Note 4: those persons buying or selling stones to which the above clause applies sometimes use descriptions such as 'surface diffusion treated' or 'heated with the addition of e.g., beryllium, titanium etc.' These descriptions and others are commonly used trading terms but are not used by LMHC members.

---

©2004 Laboratory Manual Harmonization Committee. This document may be freely copied and distributed so long as it is reproduced in its entirety, complete with this copyright statement. Any other reproduction, translation or abstracting is prohibited without the express written consent of the Laboratory Manual Harmonization Committee.

All rights jointly reserved by:

**AGTA-Gemmological Testing Center (USA), CIGEM (Italy), GAAJ Laboratory (Japan), GIA-Gem Trade Laboratory (USA), GIT-Gem Testing Laboratory (Thailand), Gübelin Gem Lab (Switzerland), SSEF Swiss Gemmological Institute (Switzerland)**