



Laboratory Notes: alterations and counterfeits, Gemological identification, Nomenclature and disclosure policy

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Gemological laboratories are always at the forefront in identifying counterfeits and alterations of gemological materials.

We have noticed that counterfeits tend to follow market interests, see for example the recent increase in the value of emeralds and gold. They are also influenced by the demand for rare materials that are gradually gaining importance in the market (such as opal and turquoise) and by the evolution of techniques of treatments already consolidated.

Prompt identification and appropriate language are the two foundations for the protection of the final consumer.

IGN, dealing with certification on behalf of third parties, has the opportunity to receive materials from both private customers and commercial operators, thus finding itself in a privileged position to observe these new attempts at fraud.

The ones reported are some examples that we propose, with the hope that the disclosure of these notes can be an alert to colleagues of the sector.

Below is a brief detail of some practical cases:

- Andamooka black opals subjected to “sugar-acid treatment”: identification, terminology and disclosure policy;
- “Zachery treated” turquoise: dye or simple stabilizer?
- Green plastic imitation emerald with solid inclusions: identification and disclosure policy;
- “Coated beryl”, beryl (in our case morganite) coated in imitation of emerald: identification and disclosure policy;
- Ruby with glass infiltrations without the typical gas bubbles observable under magnification;
- Counterfeit in metals: new silver processing techniques; fraudulent hallmarking.