



Dr. Rossman Speaks on Andesine

Over the past year consumers and the gemstone industry have waited with great anticipation for the promised report from world renowned scientist, Dr. George Rossman, professor of mineralogy at the Division of Geological and Planetary Sciences at Caltech (California Institute of Technology), regarding Caltech research on the copper diffusion of andesine. At the 852nd meeting of The Mineralogical Society of Southern California held on Friday, March 13, 2009, Dr. Rossman made a presentation of his findings. We have attached the PDF file of the minutes of this meeting that includes an overview of the presentation starting on Page 3 ([minutes of the MSSC 13 March](#)). Here is a brief synopsis of the important points of that report that directly affect consumers and the industry.

A. Glass clear feldspar has also been found in the Casas Grande area of Mexico, and near Sonora, Mexico. A small percentage of the Sonoran feldspar has schiller. Additional sources of various levels of credibility have been reported in the Congo, Tibet and China. (MSSC minutes, Mar 2009 this and below)

B. It was first thought that the Chinese feldspar was heat treated to obtain the red coloration. However, researchers at Caltech, using very high temperature ovens, could not duplicate the appearance of such feldspar.

C.researchers at Caltech had to study the diffusion of metals into plagioclase. Experiments revealed that copper diffuses easily into feldspar.

D. The researchers also compared the Chinese stones with those purportedly from Tibet, using.....isotope comparisons. The materials were found to be almost identical. Considering the geology of the two "locations", and their geographic distance apart, this result would be completely unexpected and extremely unlikely.

E. The researchers (Dr. Rossman and his team at Caltech) **concluded:**

- 1. the color of the Chinese feldspar occurs through the diffusion of copper;**
- 2. the Chinese red andesine is artificially colored;**
- 3. the Tibetan red andesine mine probably does not exist.**

(emphasis is ours)

Our Response: Perhaps the most important conclusion reported from Dr. Rossman and his team is that “Chinese red andesine is artificially colored”. This not only confirms the ISG findings of a year ago, but also calls to question all of the red Chinese andesine being sold on the market without disclosure, which includes certain of the television shopping channels. According to the US Federal Trade Commission and many state statutes, this constitutes a deceptive trade practice and is actionable under these statutes.

[US Federal Trade Commission under Title 16, Sections 23.0, 23.1 and 23.22, c:](#)

[§ 23.0 Scope and application.](#)

(a) These guides apply to jewelry industry products,....."

(b) These guides apply to persons, partnerships, or corporations, at every level of the trade (including but not limited to manufacturers, suppliers, and retailers) engaged in the business of offering for sale, selling, or distributing industry products.

[§ 23.1 Deception \(general\).](#)

It is unfair or deceptive to misrepresent the type, kind, grade, quality, quantity, metallic content, size, weight, cut, color, character, treatment, substance, durability, serviceability, origin, price, value, preparation, production, manufacture, distribution, or any other material aspect of an industry product.

[§ 23.22 Disclosure of treatments to gemstones.](#)

It is unfair or deceptive to fail to disclose that a gemstone has been treated if:

(c) the treatment has a significant effect on the stone's value. The seller should disclose that the gemstone has been treated.

Note to § 23.22: The disclosures outlined in this section are applicable to sellers at every level of trade, as defined in § 23.0(b) of these Guides, and they may be made at the point of sale prior to sale; except that where a jewelry product can be purchased without personally viewing the product, (e.g., direct mail catalogs, online services, televised shopping programs) disclosure should be made in the solicitation for or description of the product.

Based on this section, television shopping channels, internet sellers, jewelry stores and gemstone dealers including trade shows that sell or have sold Chinese red andesine without disclosing the fact that it has been artificially diffused with copper are perpetrating a deceptive trade practice on consumers.

It is also expected that those issuing gemological reports and/or appraisal reports that fail to disclose the artificially diffused condition of red andesine could be held liable for perpetrating of a deceptive trade practice on buyers based on the above referenced FTC Guides and applicable state consumer protection statutes, as these reports may constitute a furtherance of the failure to disclose the treatment. An example is attached from the Diamond Institute of Anaheim California provided to shoppers of one television shopping channel. ([DiamondInstitute: Aug 2007](#))

There are many state Consumer Protection Laws that specifically prohibit the selling of red andesine without proper disclosure as required by the FTC Guides:

Texas:

Sec. 17.12. DECEPTIVE ADVERTISING. (a) No person may disseminate a statement he knows materially misrepresents the cost or character of tangible personal property, a security, service, or anything he may offer for the purpose of

- (1) selling, contracting to sell, otherwise disposing of, or contracting to dispose of the tangible personal property, security, service, or anything he may offer;

California:

California Civil Code 1770. (a) The following unfair methods of competition and unfair or deceptive acts or practices undertaken by any person in a transaction intended to result or which results in the sale or lease of goods or services to any consumer are unlawful:

(4) Using deceptive representations or designations of geographic origin in connection with goods or services.

7) Representing that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, if they are of another.

Florida

501.204 Unlawful acts and practices.--

(1) Unfair methods of competition, unconscionable acts or practices, and unfair or deceptive acts or practices in the conduct of any trade or commerce are hereby declared unlawful.

(2) It is the intent of the Legislature that, in construing subsection (1), **due consideration and great weight shall be given to the interpretations of the Federal Trade Commission** and the federal courts relating to s. 5(a)(1) of the Federal Trade Commission Act, 15 U.S.C. s. 45(a)(1) as of July 1, 2006.

(emphasis is ours)

Based on the above it is obvious to the ISG community that it is time for our industry leaders to take action. The ISG has been providing information on the diffusion treatments of this red andesine for over a year, and still the industry takes no action.

The Jewelers Vigilance Committee has yet to make any statement or take any action on behalf of the industry or consumers regarding this matter.

The American Gem Trade Association who has been informed for well over two years on this issue, specifically that at least one of their largest members is involved in this situation, has taken no firm action in our opinion. Indeed, the AGTA GTC Gemological Reports ([AGTA GTC Identification Report 91011409](#)) are ubiquitous in this situation, yet nothing has been done to deal with this matter by the AGTA.

It is our hope that the above published conclusions of Dr. Rossman and his research team at Caltech will finally serve as the catalyst to motivate the colored gemstone industry to take action in what many believe are deceptive trade practices being perpetrated on consumers regarding the selling of red andesine from China (or any other source) without disclosure.

It will be unfortunate if we continue to fail to take action, and the Federal and State Government offices have to step in and take over the enforcement of the existing consumer protection laws regarding the selling of andesine. While we still have time to take action first, we must do so immediately. The ISG has made every effort, it is now up to the industry leaders.

Consumers are watching to see where we go from here.

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