

New treatments and synthetics continue to appear in the market. While some of these have been observed in the laboratory and occasionally noted in a journal, it becomes necessary to keep alert as they become more prevalent in the retail market. In the following instance, we found the amusing oddity of a treated synthetic.

Increasingly being seen in mounted jewelry and on gemstone websites is a Verneuil synthetic ruby that has been quench crackled and subsequently heated in a flux & borax solution.

Using the same process that improves the color and clarity of natural ruby, this clever deception gives an inexpensive synthetic the initial appearance of many heated, natural Mong Hsu Burmese rubies. Upon closer examination you will see what appear to be wispy veils, most often forming in honeycomb-like patterns. (fig.1) To the unsuspecting eye, it is easy to believe that the item is a flux grown synthetic, when in fact it is a treated flame fusion. (fig.2) The openings in the fissures allow the “healing” of the ruby when heated with borax and flux, causing them to closely resemble healed fractures of natural ruby or the flux patterns in flux grown material.

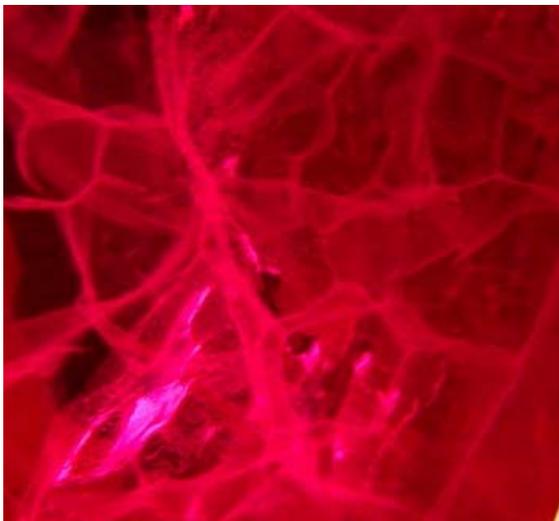


Figure 1 Honeycomb or chicken wire pattern.



Figure 2 Curved Striae

While we cannot say the true intent of the treaters, the deception is clear. These stones closely imitate inclusions seen in either treated Mong Hsu ruby or flux grown synthetics. We find a certain humour and irony in that inexpensive synthetics are now imitating more expensive synthetics – at less cost and in larger sizes. Thorough microscopic examination is key in revealing this material. In most stones we have seen, curved striae are visible with careful examination.

Our laboratory first saw this material in December of 2004, coming out of the northern Thailand area. It was reported again by Chris Smith in June, 2005 but had been noticed as early as 1983 by John Koivula. Keep your eyes on any larger ruby as they may be either lead glass treated or quench crackled and borax treated synthetic.