

# Gemological and Mineralogical Characteristics of an Imitation of Dushan Jade

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**Abstract:** Some nominal Dushan jade samples were examined by using conventional gemmological methods in this paper. It is found that their color, hardness, density are very close to Dushan jade, but the refractive index of the samples is slightly lower than that of Dushan jade. In order to determine their authenticity, Fourier transform infrared spectroscopy, X-ray powder diffraction, scanning electron microscope (SEM) and X-ray energy spectrum analysis were employed. Results show that the samples consist mainly of quartz and sericite, but not plagioclase, zoisite, muscovite (CR), uralite or other components of the main mineral composition of Dushan jade, and should be named as sericite quartzite.

**Keywords:** Dushan jade; quartz; sericite