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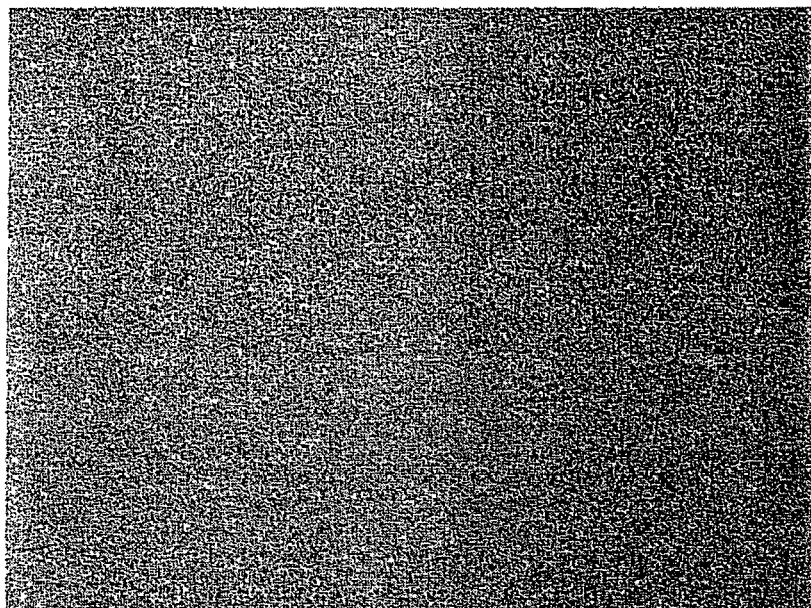
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(54) Title: JADEITE AND ITS PRODUCTION



(57) Abstract: A jadeite material has a thickness in excess of about 1.0 mm and CIELAB indices of $L^* > 42$, $a^* < -6$, and $b^* > +6$. The grain size of the jadeite material is less than about 30 microns and is an equiaxed grain structure. The jadeite material has an optical transmission peak between 500 and 565 nm with an I/I_0 optical transmission ratio of over 40 %. The first step in making the jadeite material is to wrap a glass block, convertible by HP/HT into jadeite and having a nominal composition of $\text{NaAlSi}_2\text{O}_6$, with a graphite or refractive metal sheet. The wrapped glass block is placed in an HP/HT apparatus, rapidly heated, and subjected therein to a pressure in excess of about 3 GPa and a temperature in excess of about 1000 °C for a time adequate to convert the glass block into jadeite. The jadeite material then is cooled and the

pressure subsequently released.



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