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(71) Applicant: **GENERAL ELECTRIC COMPANY**
[US/US]; 1 River Road, Schenectady, NY 12345 (US).

(72) Inventors: **VAGARALI, Suresh, Shankarappa**; 6867
Linbrook Boulevard, Columbus, OH 43235 (US). **ANTHONY, Thomas, Richard**; 2142 Lynnwood Drive,
Schenectady, NY 12309 (US). **CASEY, John**; 159 Georgian Village, Castleknock, Dublin 15 (IE). **DEVRIES, Robert, Charles**; 17 Van Vorst Drive, Burnt Hills, NY 12027 (US). **DOLE, Stephen, Lee**; 1195 Vinewood Drive,
Columbus, OH 43229 (US). **LUCEK, John, William**; 2660 Quail Crossing Drive, Powell, OH 43065 (US). **SMITH, Alan, Cameron**; 144 Furry Park Road, Killester,

Dublin 5 (IE). **VARGHESE, Biju**; 7573 Canter Ridge Lane, Worthington, OH 43085 (US). **WEBB, Steven, William**; 253 Weydon Road, Worthington, OH 43085 (US).

(74) Agents: **SNYDER, Bernard** et al.; General Electric Company, 3135 Easton Turnpike W3C, Fairfield, CT 06828 (US).

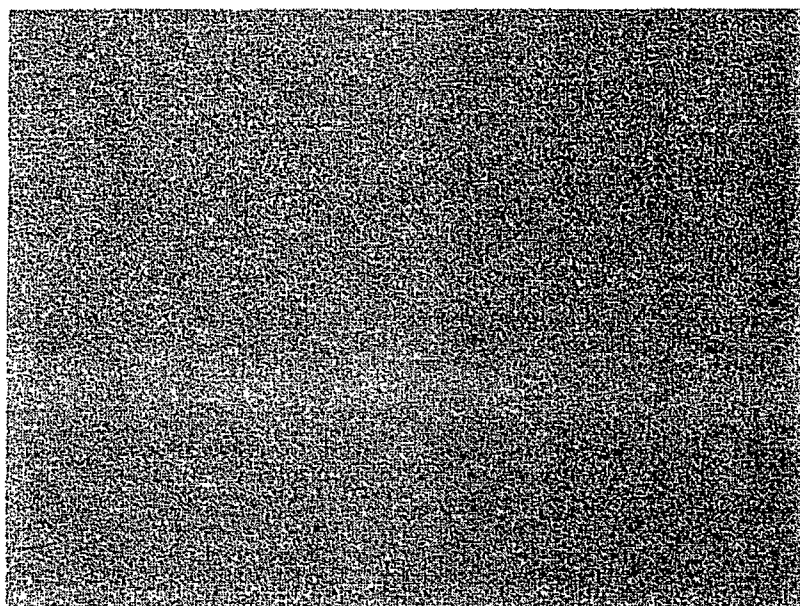
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(54) Title: JADEITE AND ITS PRODUCTION



(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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