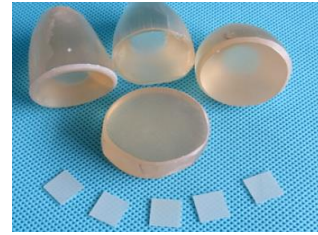


**SrTiO<sub>3</sub> Strontium Titanate :**

SrTiO<sub>3</sub> Strontium titanate single crystal has the good lattice structure possessed by perovskite structured materials. It is an excellent substrate material for the epitaxial growth of HTS and most oxide films, and has been widely used in the research of high-temperature superconducting films. It is also widely used in special optical windows and high-quality sputtering targets.



**Main features:**

Well with the lattice of HTS materials

No twin crystal structure

Excellent physical and mechanical properties

**Materials properties:**

|                                      |  |
|--------------------------------------|--|
| Syngony                              | cubic system   |
| Growing directions                   | Flame method   |
| Lattice constant                     | a=3.905Å   |
| Melting point (°C)                   | 2080   |
| Density (g/cm <sup>3</sup> )         | 5.122  |
| Hardness (Mho)                       | 6-6.5  |
| Thermal expansion coefficient (/°C)  | 9.4×10 <sup>-6</sup>   |
| Dielectric constant                  | ε=5.20   |
| Thermal expansion coefficient        | 10.4×10 <sup>-6</sup> /k   |
| Color and appearance                 | Transparent (sometimes slightly brown according to the annealing state) without twin |
| Crystal surface orientation accuracy | ±0.5°  |
| Edge orientation accuracy            | 2° (Special requirements are within 1°)  |
| Crystal orientation                  | <100>, <110>, <111>, etc   |