Thermoelectric Material Library via Laser Melting

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**Research Highlights**

- Rapid synthesis of thermoelectric compounds via laser melting is successfully applied to binary, ternary and quaternary systems.
- Thermoelectric properties of the compounds reasonably agree with literature.
- Process time of the laser melting requires 2-3 min/sample, and 20 samples/batch is available.

**Laser Melting System and Synthesized Compounds**

- **Laser Melting Apparatus**
- **Process Flow of TE Library**
- **Thermoelectric Properties**

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**Thermoelectric Properties**

- **Bi-Sb**
- **Mn-Al-Si**
- **Ba-Ga-Al-Si (clathrate)**

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**Reference**

Rapid synthesis of thermoelectric compounds by laser melting