



Phase separation and mechanical properties in amorphous Cu-based alloys

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Research topic

- Identifying the phase separation in Cu-based amorphous alloys by TEM.
- Improving the ductility of Cu-based amorphous alloys.
- Obtaining ductility of Cu-based amorphous alloys with tensile testing.



Experimental method

- **Composition design**

Based on thermodynamic calculation

- **BMG rod preparation**

Suction casting by mini arc melting system

(arc melting under He atmosphere and sucking the melt into the Cu-mold that with cooling water to supercool)

- **Analysis**

TEM, SEM, XRD, compression testing,
and tensile testing