

N94-13749

**PREPARATION OF OPTICAL MATERIALS USED IN NON-VISIBLE REGION
M-17**

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Purpose of Experiment

- Development of containerless glass melting technique
- Fabrication of high purity glass
- Development of acoustic levitation technique

SAMPLE: For the space experiment, glass $65\text{CaO}\cdot 25\text{Ga}_2\text{O}_3\cdot 10\text{GeO}_2$

was selected out of various types of glasses.

Expected Results

- Ultra-high purity glass
- Manipulation by acoustics

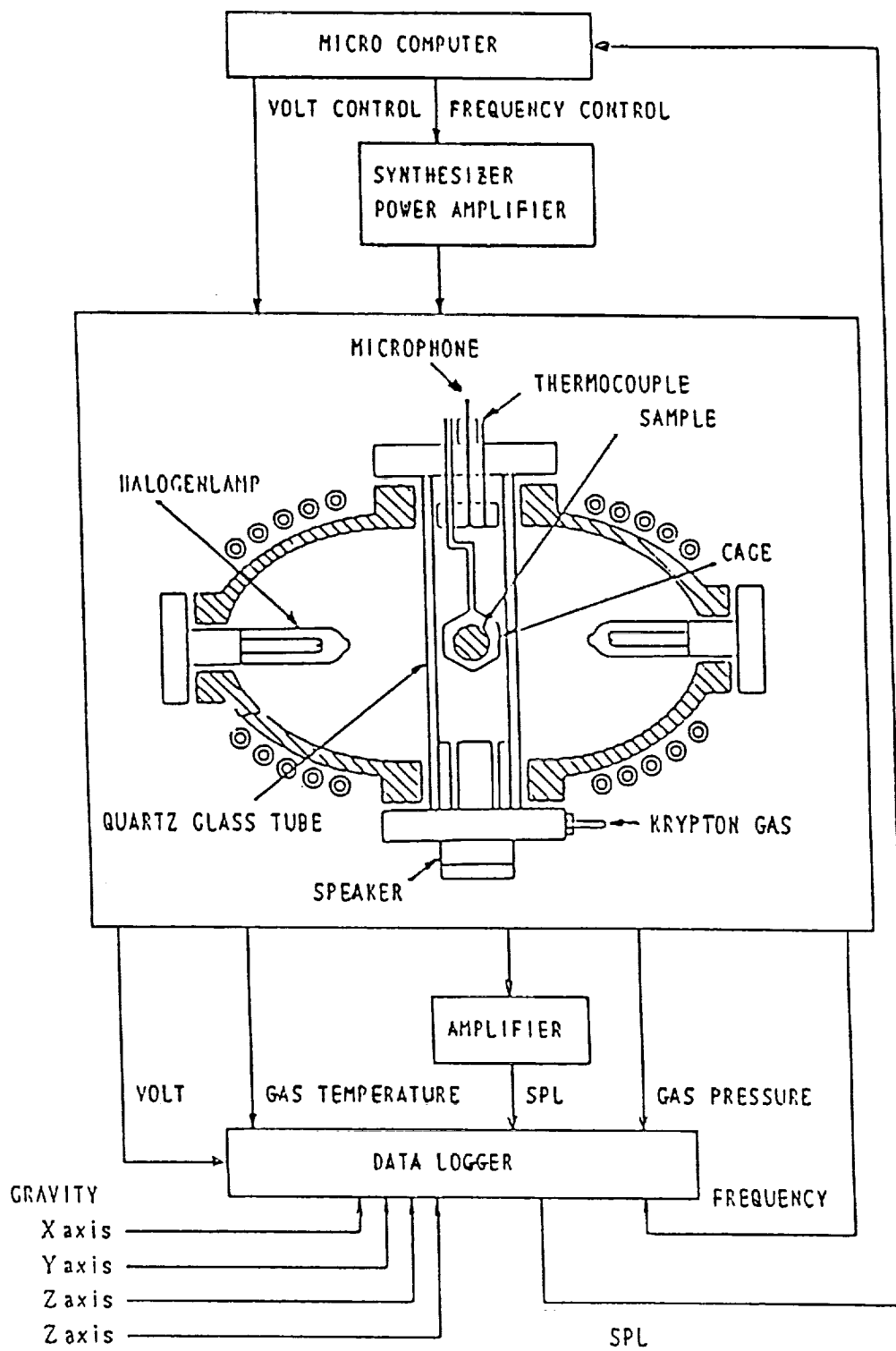
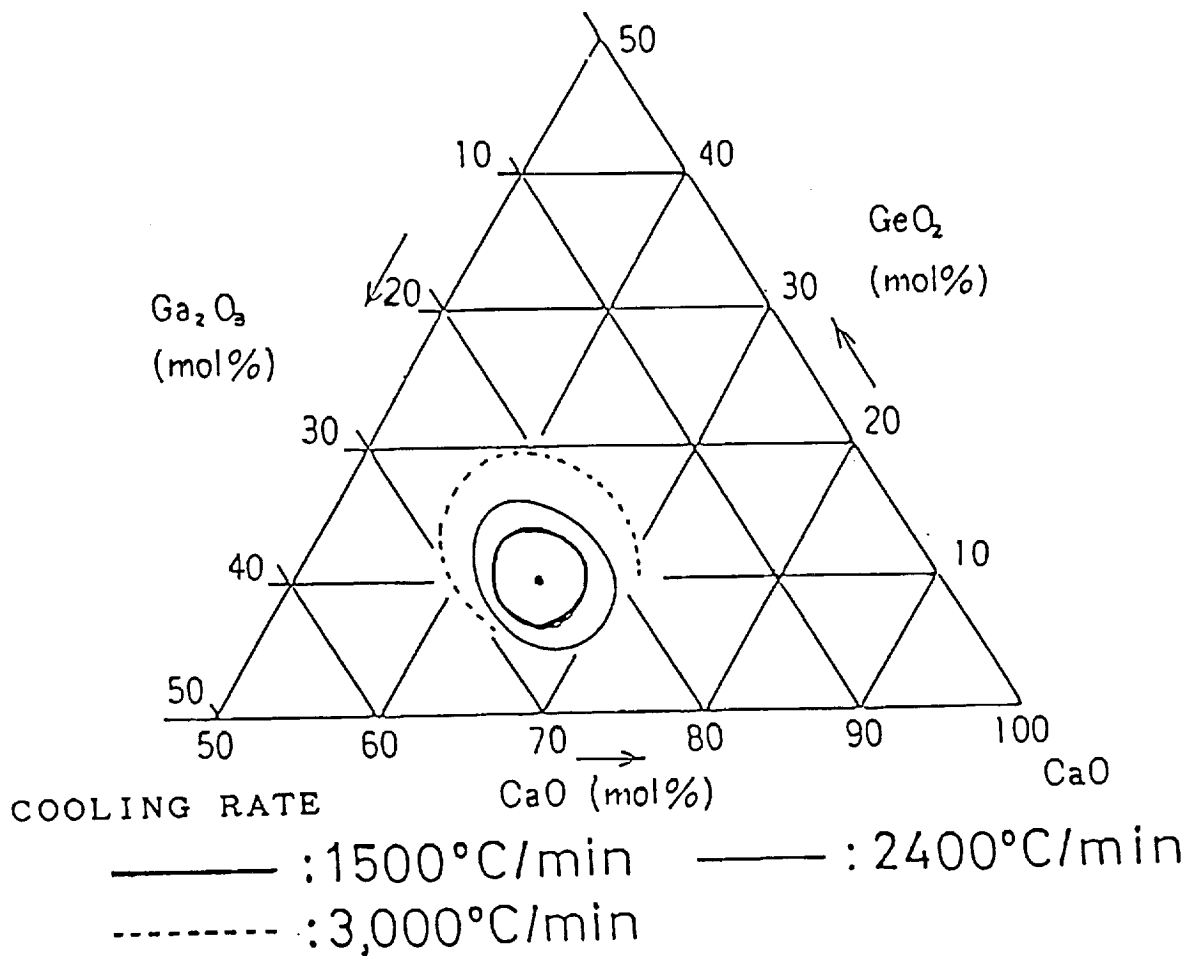


Figure 1. Schematic diagram of acoustic levitation furnace.



Glass Composition



Figure 2. Glass formation range of CaO-Ga₂O₃-GeO₂

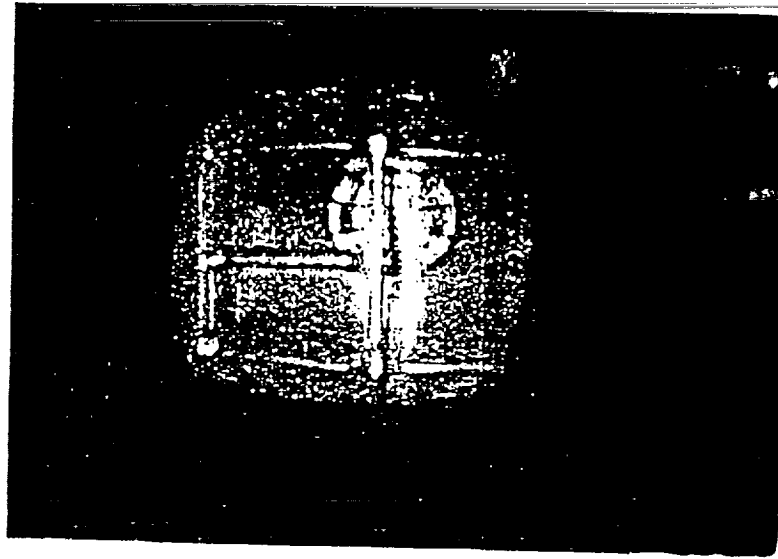


Figure 3. Molten glass under microgravity on the board.



Figure 4. Levitating the glass sample under low gravity.

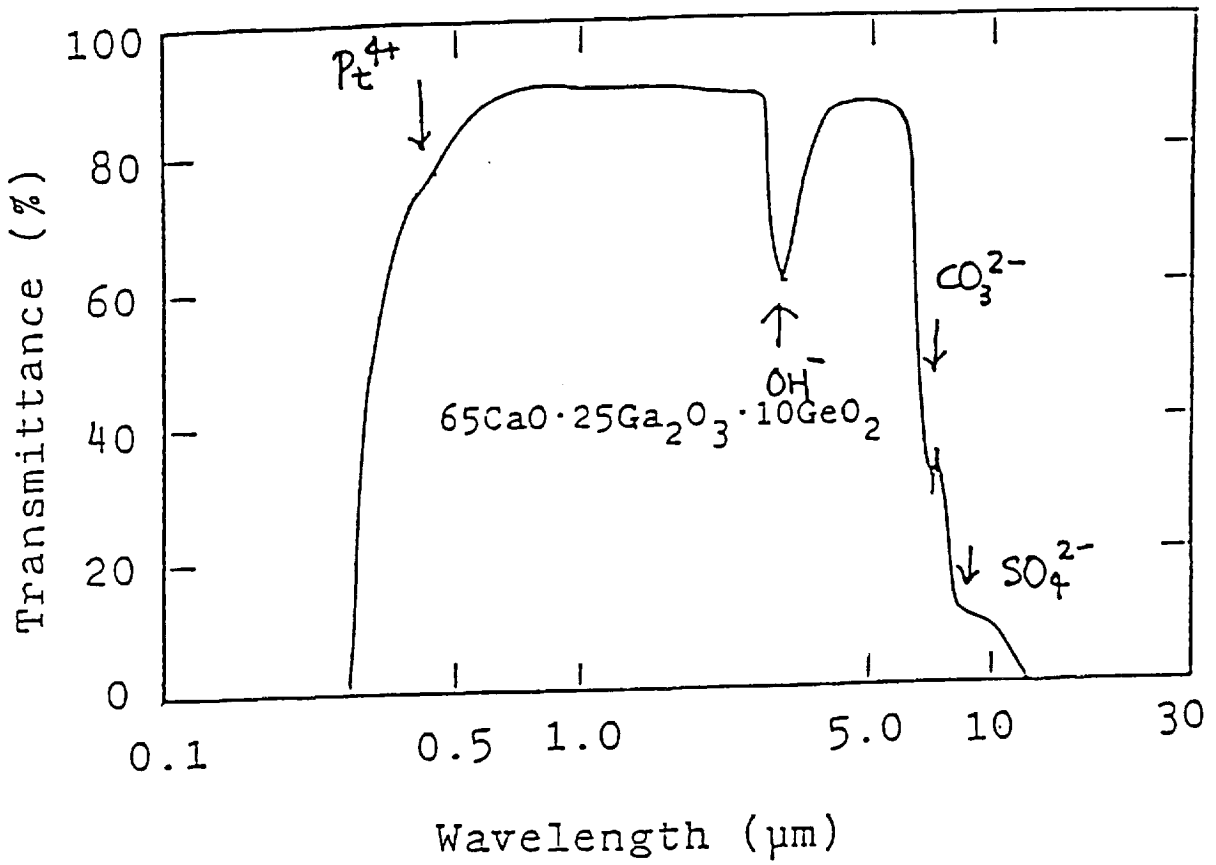


Figure 5.

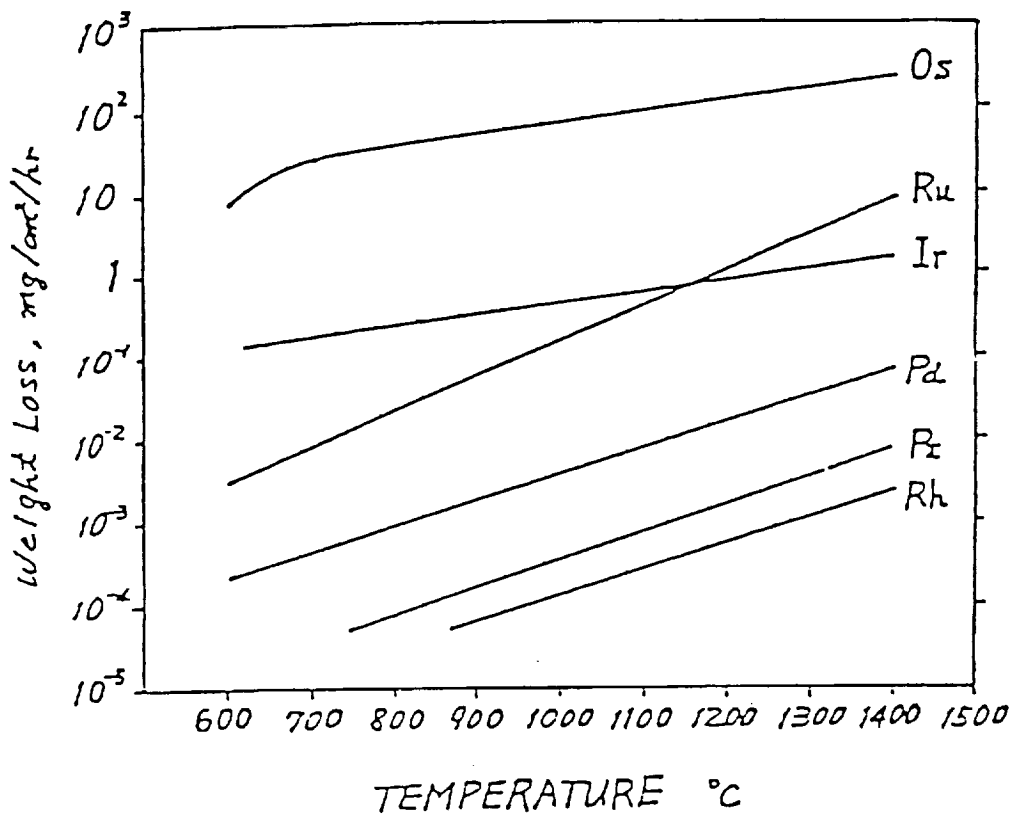


Figure 6.

