

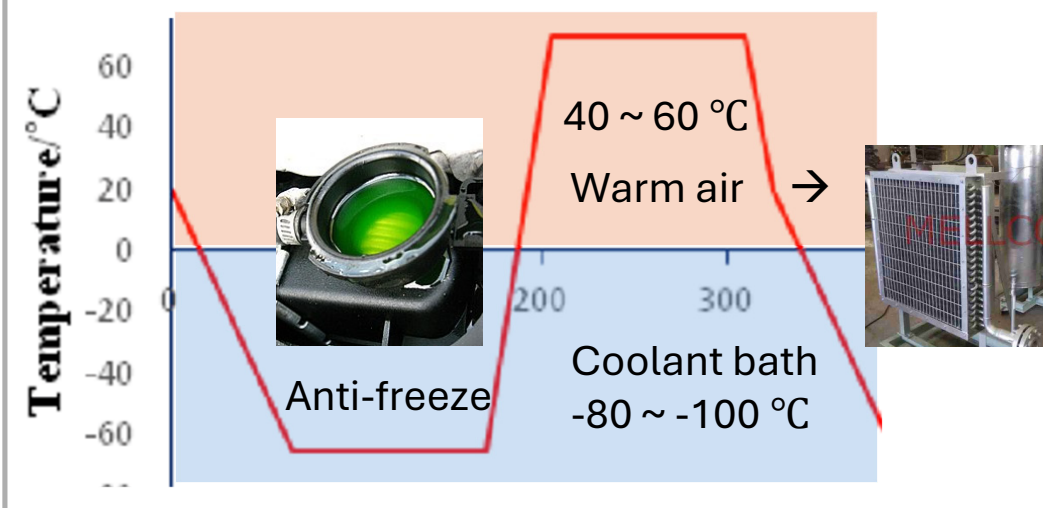
Sequential thermal cycling and resonant vibration for low-energy pollution-free E-waste separation

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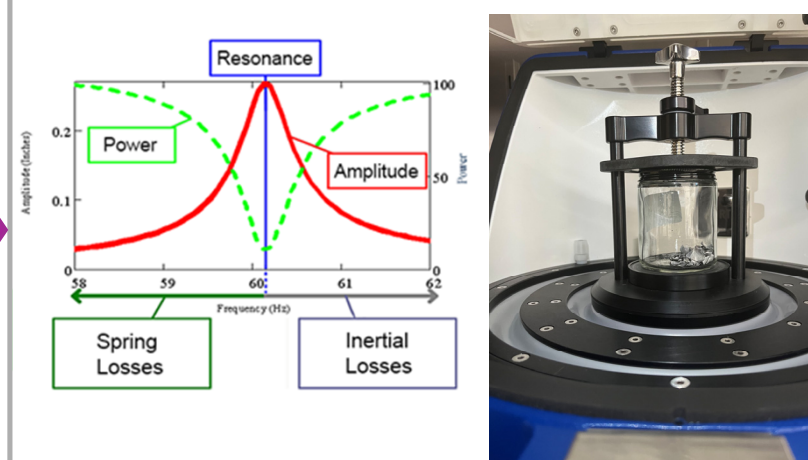
Innovation tagline

- Thermal cycling to partially separate the materials via the thermal expansion mismatch
- Resonant vibration (RV): complete the separation with a reduced thermal cycles
- Artificial intelligence (AI)-driven robotics-based autonomous operation
- Technology validation and transition

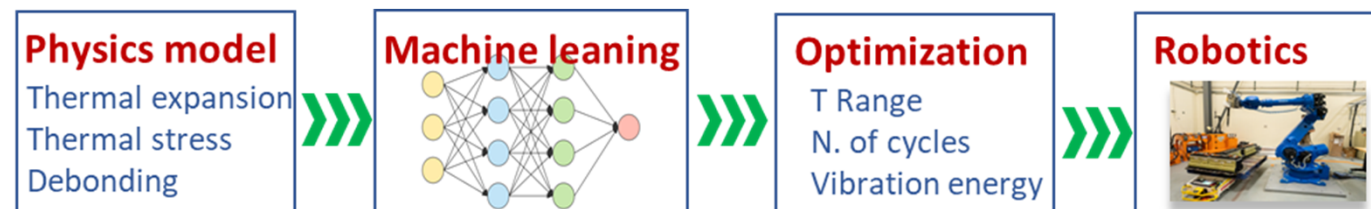
Innovation 1: Thermal cycling



Innovation 2: Resonant vibration



Innovation 3: AI driven robotics-based autonomous operation



Turnkey



Outputs

- ✓ Copper
- ✓ Aluminum
- ✓ Glass fiber
- ✓ Precious metals

Technology validation and transition