

Impact of heat flow direction and layer configuration on the calibration accuracy of thermoelectric heat flux sensors (THFS)

Idea and Background

Study the heat sensitivity of THFS for potential use in battery heat flow measurements. Investigating the influence of source–sensor layer order during calibration on the uncertainty of sensitivity (G).

Research questions

- What role does the copper interface layer play in stabilizing or altering the measured sensitivity?
- Does reversing the configuration introduce systematic errors that limit transferability of calibration results?

Qualifications:

- Basic knowledge of heat transfer and thermoelectric effects
- Familiarity with sensor technology or thermal measurement systems
- Experience with laboratory experiments and data evaluation (optional)
- Basic skills in simulation tools like COMSOL or MATLAB

Contact:

Faeze Asgari Sima
Tel.: 0921/55-4964

E-Mail: Faeze.Asgari-Sima@uni-bayreuth.de

BayBatt building, room 1.10

Weiherstraße 26, 95448 Bayreuth

