



STUDIECENTRUM VOOR KERNENERGIE  
CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE

# Set-up for post-irradiation determination of temperature during nuclear reactor exposure with 3C-SiC

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Accurate temperature measurements inside the reactor near experiments are a necessity

**Now:** thermocouple set-ups, calculations or melt wires are used

**Future:** Cubic Silicon Carbide (3C-SiC) as post-irradiation temperature monitor

Development challenges

- Electrical insulation
- High contact resistances
- Large temperature range
- Small scale
- Radiation protection

See Poster 22 for more details

