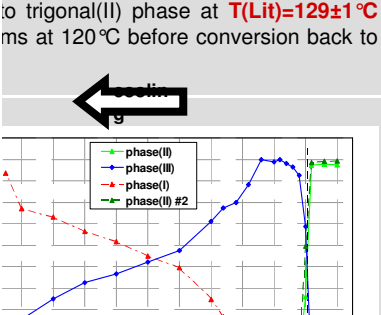
e changes when the phase transition is

t Pro diffractometer and Anton Paar

mple holder were compensated using a

o trigonal(II) phase at **T(Lit)=129±1℃**
ms at 120℃ before conversion back to




**se formation during cooling, starting with ase(II).**

reen curve shows the transition of (III) for a second cooling cycle.

**ng cycle** is **T(meas)=128℃**, which is ng down the sample (Fig.2), a sharp at 120℃. This transition is very ) proceeds slowly and is not complete. **e at which** the **transition (I)⇨(II) takes**

**Fig. 4**
**Transition of $BaCO_3$ from phase(I)⇨phas samples (s#1,s#2) for repeated heating c (m#1-3).**

The Graph shows the decrease of the phas intensity at ≈23.4°2θ

The transition temperature of **T(meas)** tabulated value.

For **subsequent heating cycles** the **t**

The reason for the observed shift in tr $BaCO_3$ powder during the first heating

Because of the shown change in trans and its destructive effect on platinum h **XRD temperature calibration**.

## Temperature calibration w

As an example for a calibration with pl shows the calibration curve obtained f

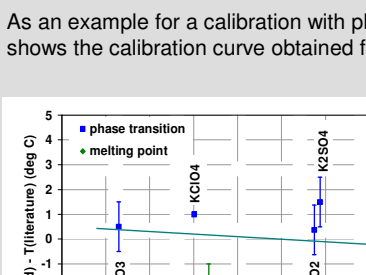



**Fig. 6**
**Calibration curve with phase transitions for an XRK900 heating attachment.**

Atmosphere in the chamber: air, 1 bar

Calibration of the temperature measur