

# Thermal stability of the microwave permeability of nanocrystallized glass coated microwires up to 350 °C

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Ferromagnetic glass coated microwires have been studied for long as soft magnetic materials suitable for a variety of applications [1]. The composition of the ferromagnetic nucleus was generally an amorphous CoFeSiB alloy. In addition to their very good magnetic properties, they possess a very good thermal stability because of a stabilized atomic structure and a higher Curie temperature than their amorphous counterparts (600 °C versus 350 °C for the common alloys of CoFeSiB family). Samples for APC7 coaxial line measurements were then elaborated by winding the microwire into a torus. Microwave permeability measurements were then performed at various temperatures up to 350 °C using a dedicated set-up.

## References:

[1] M. Vazquez, A.L. Adenot-Engelvin, J. Magn. Magn. Meter.