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## DETAILED CFD MODELING AND EXPERIMENTAL VERIFICATION OF THERMOCOUPLE INSERTION DEPTH IN FLAMES

Detailed CFD models of mineral insulated metal sheath (MIMS) thermocouples are discussed and thermocouple readings in clean flames are verified against experimental thermocouple data for a Hencken burner flame available in the literature. Computational results present thermocouple temperature readings as functions of thermocouple insertion depth in three-dimensional directions. Computational temperature correlations are plotted against non-dimensional insertion depth and insertion height above burner. Overall, predictions showed excellent agreement with experimental data. Deviations occurred as thermocouple tip was moved further away from burner edges due to axial heat losses.

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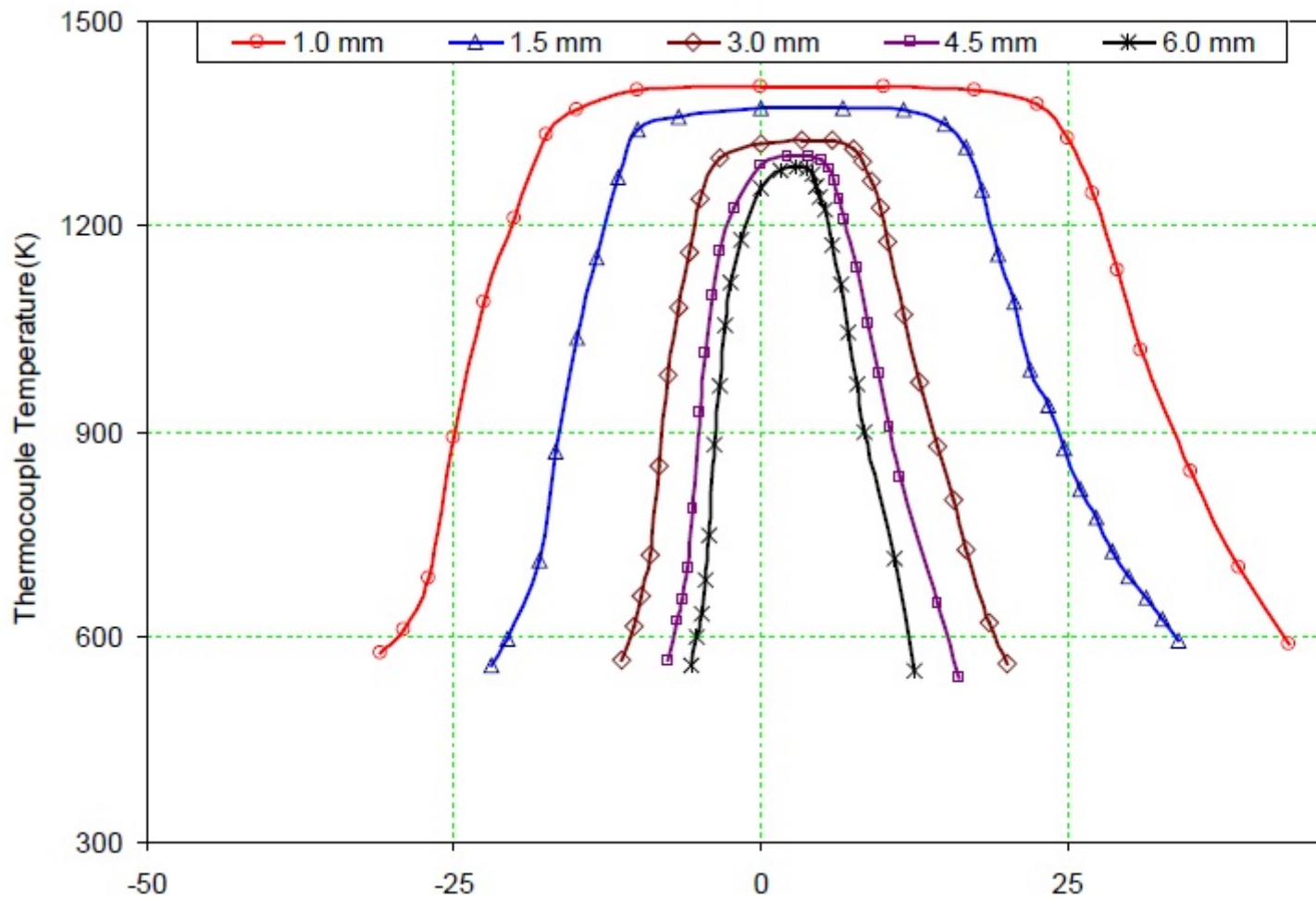
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