The larger hole was 0.024 inch in diameter and the small hole was 0.014 inch in diameter. The heater geometry was the same as that used in the synthesis runs and the BN plug was the same size as the BN liners used in the synthesis runs. It was found that if the hypodermic tubes were pushed against the graphite heater they formed a very efficient heat loss path. Their effect is shown in Figure 29. A temperature drop of over 400 °C at 350 watts was noted in two runs where this was done. If the tubing was kept over 0.15 inch away from the heater this effect was not observed. In calibration runs the tubing was inserted 0.20 inch from the heater.

The second geometry was used in runs 9 through 14 and is shown in Figure 28. Both wires were taken out the end of the heater rather than the side and protected by an alumina sheath 0.062 inch O.D. with two 0.012 inch holes for the thermocouple wires. A BN sleeve and plug were used to fill the rest of the graphite heater. Differences between this geometry and the first were within the scatter of the experimental data.

In runs TC-5 and TC-6 a second thermocouple wire was inserted through the BN plug to see if the thermocouple itself was a serious heat sink. The temperatures recorded for these runs were within the scatter of the other runs so this was not considered a serious error. In run TC-6 the second wire was actually from a thermocouple 0.10 inch away