which is outside of their stated experimental limits. In addition their chromel-alumel corrections are positive while ours are negative.

Of the results presented at this conference, our results are most easily compared with those of Getting and Kennedy[2]. The agreement is within experimental errors for Pt, Pt10Rh and alumel. For chromel, their results are lower than ours by a significant amount (the order of 30 percent at 20 Kb and $\Delta T = 0 - 400°C$). It appears that the strain effect described above could be the cause of this discrepancy. However, our hydrostatic results are in agreement with our piston cylinder data within an error limit of ± 7 percent. Since no strain effects are present under the hydrostatic conditions, the agreement of our two sets of data indicates our piston-cylinder chromel data to be more accurate than that of Getting and Kennedy.

## Conclusions

We have only discussed the data, and the data gathering procedure so far, but have not described how to use the data. In the Introduction, Equation (3) shows that as the result of the pressure dependence of the thermoelectric power, an additional emf is generated in a thermocouple circuit if the pressurized region is in a region of changing temperature. It was also shown that single wire experiments could measure directly the amount of additional emf generated. To utilize the single wire results, one must know the temperature of the thermocouple junction in the high-pressure cell and the temperature of the seal where the pressure drops to zero. The internal temperature is