give the same results within the experimental error. For a temperature interval of 30-300°C the piston cylinder results at 10 Kb show a pressure emf of 39 ± 3 μv for alumel and 43 ± 3 μv for chromel, while the hydrostatic results if extrapolated from 8 Kb to 10 Kb yield 36 ± 3 μv for alumel and 39 ± 3 μv for chromel. Also, it is seen that over this temperature-pressure range the pressure emf of chromel is equal to that of alumel within the experimental error for both the hydrostatic experiment and the piston cylinder experiment. This shows that the two methods of measuring the pressure emf give consistent results.

Other measurements are available for comparison with our results, but we will only comment in general about them.

Bundy's[5] single wire experiment gave consistently higher emf values than ours for alumel, platinum and platinum 10 percent rhodium His chromel value was negative which was probably the result of the strain effect described above.

Bloch and Chaissé[6] measured Cu-Constantan hydrostatically and their results agree with ours within our experimental error of ±.25 μv/Kb.

Bridgman's[7] single wire experiments on constantan and copper yielded pressure emf's which were the same as ours within our experimental error.

The comparative measurements of Hanneman and Strong[4] on Pt-Pt10Rh vs chromel-alumel couples at 40 kilobars with a temperature interval of 0-400°C are within 10 percent of our results. Their absolute values[8] for Pt-Pt10Rh are higher than our values by 30 percent