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Electrochemical analysis of hydrogen equilibrium near the inversion temperature DANIEL WARREN, CRAIG HOWALD, Marietta College — In this work we examine the non-ideality of the equilibrium between dissolved hydrogen ions and molecular hydrogen gas through a temperature range spanning the maximum inversion temperature of hydrogen. A pressure cell with a methanol solution, an aluminum electrode, and a platinum electrode is used to measure the approach to equilibrium. This is accomplished by simultaneously monitoring current flow between the electrodes and pressure changes for varying driving potentials as a function of temperature.

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