The thermal conductivities of liquid R161 and HFC-1234yf were measured from 243K to 353 K at pressures from 0 to 30 MPa by the transient hot-wire technique employing two anodized tantalum hot wires. The experimental data were correlated as a function of pressure and temperature. The average absolute deviation of experimental data from those calculated by the equation for R161 and HFC-1234yf were 0.24 % and 0.56 %, respectively, and the maximum absolute deviations were 0.80 % and 1.0 %, respectively. The uncertainty of the thermal conductivity measurement was 2.0 % with a coverage factor of k = 2.