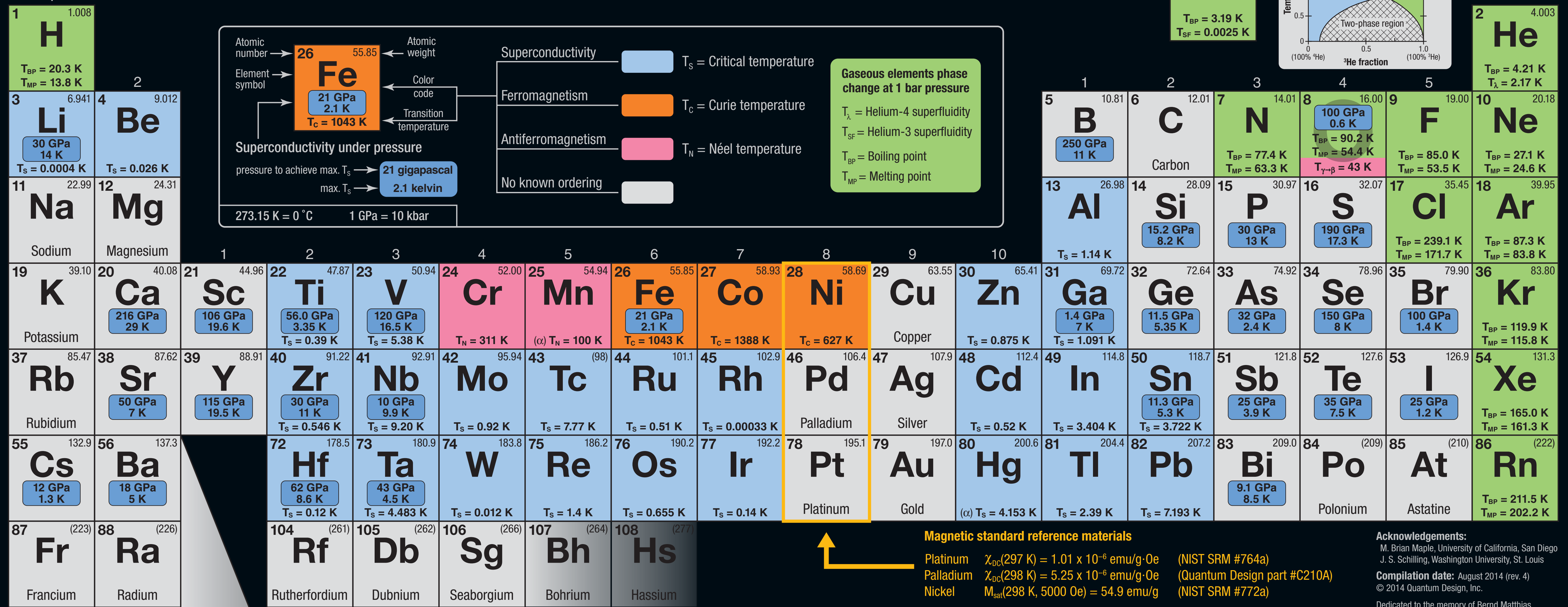


Periodic Table of Elements

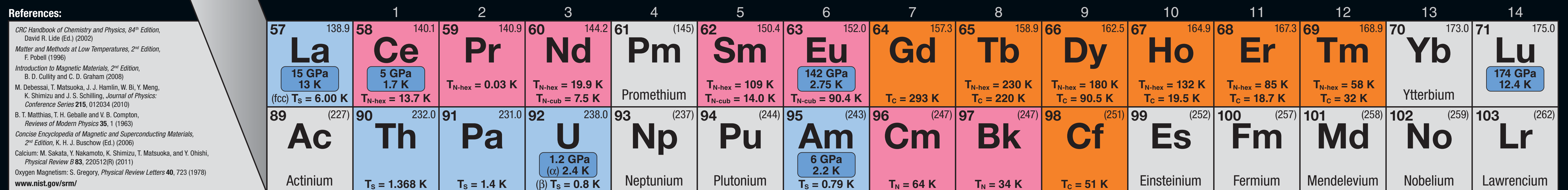
Selected Phase Transition Temperatures



References:
 CRC Handbook of Chemistry and Physics, 84th Edition, David R. Lide (Ed.) (2002)
 Matter and Methods at Low Temperatures, 2nd Edition, F. Pobell (1996)
 Introduction to Magnetic Materials, 2nd Edition, B. D. Cullity and C. D. Graham (2008)
 M. Debessai, T. Matsuoka, J. J. Hamlin, W. Bi, Y. Meng, K. Shimizu and J. S. Schilling, *Journal of Physics: Conference Series* 215, 012034 (2010)
 B. T. Matthias, T. H. Geballe and V. B. Compton, *Reviews of Modern Physics* 35, 1 (1963)
 Concise Encyclopedia of Magnetic and Superconducting Materials, 2nd Edition, K. H. J. Buschow (Ed.) (2006)
 Calcium: M. Sakata, Y. Nakamoto, K. Shimizu, T. Matsuoka, and Y. Ohishi, *Physical Review B* 83, 220512(R) (2011)
 Oxygen Magnetism: S. Gregory, *Physical Review Letters* 40, 723 (1978)
www.nist.gov/srm/

Magnetic standard reference materials
 Platinum $\chi_{DC}(297 \text{ K}) = 1.01 \times 10^{-6} \text{ emu/g-Oe}$ (NIST SRM #764a)
 Palladium $\chi_{DC}(298 \text{ K}) = 5.25 \times 10^{-6} \text{ emu/g-Oe}$ (Quantum Design part #C210A)
 Nickel $M_{sat}(298 \text{ K}, 5000 \text{ Oe}) = 54.9 \text{ emu/g}$ (NIST SRM #772a)

Acknowledgements:
 M. Brian Maple, University of California, San Diego
 J. S. Schilling, Washington University, St. Louis
Compilation date: August 2014 (rev. 4)
 © 2014 Quantum Design, Inc.
 Dedicated to the memory of Bernd Matthias



ATL160 Liquefaction Rate: 22 Liters / day, Capacity: 160 Liters
MPMS[®]3 EverCool[®] Base: 1.8 K - 400 K, Oven: 300 K - 1000 K
PPMS[®] DynaCool[™] Base: 1.8 K - 400 K, Oven: 300 K - 1000 K, Dilution Refrigerator: 0.050 K - 4.0 K
PPMS[®] EverCool[®] II Base: 1.9 K - 400 K, Oven: 300 K - 1000 K, Helium-3: 0.350 K - 350 K
VersaLab[™] Base: 50 K - 400 K, Oven: 300 K - 1000 K