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**Influence of pressure and chemical substitution on samarium-cobalt permanent magnets** SCOTT MCCALL, JASON JEFFRIES, JONATHON LEE, LLNL, PATRICK HUANG, California State University, East Bay — The magnetic properties of a material are generally sensitive to its crystal structure, particularly its interatomic spacing. This spacing can be adjusted through application of external pressure and by chemical substitution. Measurements on the magnetic and thermodynamic properties of samarium cobalt permanent magnets are reported as a function of applied pressure and chemical substitution on the cobalt site. The effects of these two tuning parameters will be compared and discussed. This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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