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NMR studies of hydrogen storage materials: TiCl₃-doped NaAlH₄ SEAN BARRETT, ANATOLY DEMENTYEV, DALE LI, RONA RAMOS, YANQUAN DONG, Yale University Department of Physics — An exciting development in the field of hydrogen storage materials was the 1997 discovery that a small amount of Titanium doping can significantly improve the hydrogen discharging/recharging characteristics of sodium alanate (NaAlH₄). Understanding the dopant action in this “model” compound may translate into the rational design of improved storage materials. We report static NMR measurements of both TiCl₃-doped and undoped NaAlH₄, including our detection of the Ti-NMR signal. Future directions will be discussed.

Sean Barrett
Yale University Department of Physics

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