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Simulations of a 5 Mbar, indirect-drive strength platform for use on the National Ignition Facility[1] SHON T. PRISBREY, ROBERT M. CAVALLO, HYE-SOOK PARK, BRUCE A. REMINGTON, Lawrence Livermore National Laboratory — A key component of being able to measure the strength of materials at high strain rates and pressures is the ability to create the necessary environment. One viable platform that places material into a solid state at high pressures and strain rates is that of a shock unloading from a reservoir and piling up against a sample (Edwards et al., **92** PRL 2004). We will present simulation results from a proposed indirectly-driven reservoir for the National Ignition Facility that unloads across a gap to create a ramped pressure in a tantalum sample with a peak pressure of over 5 Mbar. We will also present calculated X-ray transmission radiographs of simulated Rayleigh-Taylor growth of rippled Ta with different strength models applied to the Ta.

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