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Subscale HDC implosions driven at high radiation temperature using advanced hohlraums[1] D. HO, P. AMENDT, O. JONES, L. BERZAK HOPKINS, S. LE PAPE, LLNL — h −*abstract*−\pard Implosions using HDC ablators have received increased attention because of shorter pulse length and can access higher implosion velocity than CH ablators.[1] Recent HDC midscale (979 m radius) implosion experiments have achieved DT neutron yields of 1.5e16.[2] Our 2D simulations show that subscale (890 m radius) HDC capsules can achieve robust high-yield performance if driven at high enough radiation temperature 330 eV, because the penalty for less fuel mass can be offset by higher implosion velocity. To achieve 330 eV will likely require the use of innovative hohlraum concepts, e.g., subscale rugby-shaped hohlraum[3] using 1.3 MJ of laser energy without incurring a risk of high laser backscatter. Radiation symmetry is currently under study. Confidence in our modeling of HDC implosions is high in part because our 2D modeling of recent HDC implosions experiments show good agreement with data. \pard\pard1. D. D.-M. Ho *et al.*, Journal of Phys.: Conf. Series, **717**(1), 012023 (2016). \pard2. L. Berzak Hopkins, S. Le Pape *et al.*, this conference and paper forthcoming. . P. Amendt, D. D-M. Ho and O. S. Jones, Phys. Plasmas **22**, 040703 (2015). \pard-/abstract-\

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