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Ignition and Growth Modeling of Short Pulse Duration Shock Initiation Experiments on HNS IV CRAIG TARVER, STEVEN CHIDESTER, Lawrence Livermore National Laboratory — Short pulse duration shock initiation experiments on 1.60 g/cm3 density (92% TMD) HNS IV have been reported by Schwarz, Bowden et al., Dudley et al., Goveas et al., Greenaway et al., and others. This flyer threshold velocity for detonation/failure data plus measured unreacted HNS Hugoniot data and detonation cylinder test product expansion data were used as the experimental basis for the development of an Ignition and Growth reactive flow model for the shock initiation of HNS IV. The resulting Ignition and Growth HNS IV model parameters yielded good overall agreement with all of this experimental data. This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.: Explosive, HNS IV, shock to detonation transition, Ignition and Growth: 82.33.Vx, 82.40.Fp

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