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The Current Beryllium Ablator NIF Ignition Target Design[1] JAY SALMONSON, JOSE MILOVICH, STEVEN HAAN, DARWIN HO, Lawrence Livermore National Laboratory — We report the results of our effort to optimize and control sensitivities for the Beryllium (Be) ablator NIF ignition capsule design. We will show recent work on the latest (Revision 6) Be capsule with a maximum hohlraum radiation temperature of 295 eV and capsule radius 1.2 mm. In particular we will highlight recent efforts to mitigate against an elevated non-thermal, hard X-ray (> 1.8 keV) component to the radiation drive that is predicted by current hohlraum simulations. These efforts include exploration of a variety of different dopants other than the traditional Copper. We particularly seek dopant materials that include Silicon (Si) due to its fortuitously placed absorption K-edge (1.8 keV). Candidates under consideration include SiC and SiO_2. We also explore various dopant radial concentration profiles including *i*) a uniform dopant throughout the ablator, *ii*) a graded, "Olympic podium" set of three layers of varying concentration, *iii*) as well as a hybrid combination of these two profiles. LLNL-ABS-563631

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