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Mix Width Measurements of Accelerated Copper Foam
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SORCE, NICHOLAS WHITING, LLE — We present results from a mix experi-
ment conducted on the OMEGA laser, where a reduced density copper (Cu) foam, 1
g/cc, was accelerated into a low density material, carbonized resorcinol formaldehyde
(CRF) at 50 mg/cc. The Cu foams, which could contain voids as large as 5 to 10 μm ,
were characterized via x-ray computed tomography. The mixing in the experiment is
predicted to rapidly become turbulent. The experiment addresses whether the mix
width is determined by the void structure in the foam itself. For these experiments
the OMEGA laser is used to drive a halfraum up to a radiation temperature of \sim
190 eV using a 1 ns flat top drive with 5 kJ of total laser energy to provide the
ablation pressure for the foam. This work was performed under the auspices of the
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