Abstract Submitted for the DPP05 Meeting of The American Physical Society

Distribution of sizes and energy spectrum in the fragmented ("mixed") state induced by Rayleigh-Taylor instability GIORA HAZAK, Berkeley Res. Ass. Inc & Physics Department, Nuclear Research Center, Negev, Beer Sheva ISRAEL, YONATAN ELBAZ, Physics Department, Nuclear Research Center, Negev, Beer Sheva ISRAEL, ALEXANDER VELIKOVICH, JOHN GARDNER, LCP&FD Naval Research Laboratory, Washington DC, ANDREW SCHMITT, STEVEN ZALESAK, Plasma Physics Division, Naval Research Laboratory, Washington DC. — A study, based on simulations and experiments as well as analytical derivations, of the fragmented ("mixed") state induced by the Rayleigh-Taylor instability at the interface between two fluids is presented. The distribution of sizes and the energy spectrum in the fragmented state are derived from the symmetries exhibited by the data. These functions are useful for the construction of a sub-grid model as well as for the understanding of the internal structure of the mixed state.

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Date submitted: 02 Aug 2005

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