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Simulations of Double White Dwarf Mergers PATICK MOTL, Indiana Univ - Kokomo, JAN STAFF, University of Florida, DOMINIC MARCELLO, GEOFFREY CLAYTON, JUHAN FRANK, Louisiana State University — We present numerical simulations of double white dwarf mergers initiated by mass transfer instability. In particular, we are interested in the possible connection between such double degenerate mergers and the peculiar irregular variable R Corona Borealis stars. For the merger of a Carbon-Oxygen white dwarf with a Helium white dwarf, the degree to which Carbon from the accreting star is dredged up plays a crucial role in the appearance of the rejuvenated, merged object. We explore the amount of dredge up in the accreting star and its influence in stellar evolution models initialized from the merged object resulting from dynamical evolutions.

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