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Mechanisms for ion species segregation in the Schunk-Zimmerman multispecies ion-transport model[1] NELSON HOFFMAN, Los Alamos National Laboratory — The Schunk-Zimmerman model of multispecies ion transport is based on diffusion in local gradients of concentration, pressure, and temperature [Hoffman *et al.* Phys. Plasmas **22**, 052707 (2015)]. It represents barodiffusion as well as loss of low-Z ions across a high-Z interface. We demonstrate these phenomena in simple planar simulations of shock waves and low-Z/high-Z interfaces in multicomponent plasmas, and assess the possibility that the model may explain long-standing observations that have been interpreted as evidence for ion species segregation in inertial-fusion capsule implosions [Rygg *et al.* Phys. Plasmas **13**, 052702 (2006); Herrmann *et al.* Phys. Plasmas **16**, 056312 (2009); Casey *et al.* PRL **108**, 075002 (2012); Amendt *et al.* PRL **105**, 115005 (2010)].

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