Abstract Submitted
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Non-LTE modeling of multifluid plasmas HAI LE, UCLA — We present a collisional-radiative model to simulate non-LTE plasmas using the classical multifluid approximation. The effect of non-zero relative drift velocities of the colliding particles is taken into account in the rate formulation[1]. We show that the multifluid collision rates deviate from standard results when the kinetic energy of the relative drift motion is comparable to the average thermal energy. Numerical results are presented to demonstrate the impact of this effect on the overall kinetics of the system.

[1]Le & Cambier, PoP **22**, 093512 (2015), PoP **23**, 063505 (2016).

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