

Abstract Submitted
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Configuration based Collisional-Radiative Model including configuration interaction MICHEL BUSQUET, ARTEP, Inc , contractor to NRL & LERMA-Observatoire de Paris — Atomic levels mixing through Configuration Interaction (CI) yields important effects. It transfers oscillator strengths from allowed lines to forbidden lines, and produces strong shift and broadening of line arrays, although the total emissivity is almost insensitive to CI, being proportional to the average wave number. However for hi Z material, like Xe or Sn (potential xuv-ray source for micro-lithography), a non-LTE calculation accounting for all relevant levels will be untractable with billions of states. The model we constructed, CAVCRM (café-crème), is a non-LTE C.R.M. where states are configurations but it includes C.I. to give full richness of spectral quantities, using the latest version of the HULLAC-v9 suite of codes and our newly developed algorithm for large set of states with as many as 50,000 states [1].

[1] M.Klapisch et al, this conference

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