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## Temperature-dependent Cluster Decay Half-lives

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A temperature ( $T$ )-dependent universal decay law (UDL) of cluster decay is investigated by fitting the half-lives calculated within the  $T$ -dependent Double Folding model (DFM), in which the temperature dependence of the effective potential is introduced through the charge and matter density distributions of the interacting nuclei, and the half-lives are calculated within a preformed cluster model. As a consequence of including the  $T$  dependence, the half-lives decrease with increasing temperature, which could be of interest for applications in astrophysics and heavy-ion collision.

### email address

drojasga@uoguelph.ca

### Please select: Experiment or Theory

Theory

**Primary authors:** ROJAS GAMBOA, Diego Ferney (Universidad de Los Andes); Prof. KELKAR, Neelima (Universidad de Los Andes)

**Presenter:** ROJAS GAMBOA, Diego Ferney (Universidad de Los Andes)

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