



Nuclear Theory

# Model for projectile fragmentation: case study for Ni on Ta, Be and Xe on Al

S. Mallik, G. Chaudhuri, S. Das Gupta

(Submitted on 30 Dec 2010)

For projectile fragmentation we work out details of a model whose origin can be traced back to the Bevalac era. The model positions itself between the phenomenological EPAX parametrization and microscopic transport models like "Heavy Ion Phase Space Exploration Model" (HIPSE) and antisymmetrised molecular dynamics(AMD). We apply the model to some recent data of projectile fragmentation of Ni on Ta and Be at beam energy 140 MeV/nucleon and some older data of Xe on Al at beam energy 790 MeV/nucleon. Reasonable values of cross-sections for various composites populated in the reactions are obtained.

Comments: 23 pages,13 figures  
Subjects: **Nuclear Theory (nucl-th)**  
Journal reference: Phys.Rev.C83:044612,2011  
DOI: [10.1103/PhysRevC.83.044612](https://doi.org/10.1103/PhysRevC.83.044612)  
Cite as: [arXiv:1101.0071](https://arxiv.org/abs/1101.0071) [nucl-th]  
(or [arXiv:1101.0071v1](https://arxiv.org/abs/1101.0071v1) [nucl-th] for this version)

## Submission history

From: Swagata Mallik [[view email](#)]  
[v1] Thu, 30 Dec 2010 11:40:49 GMT (883kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

## Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

nucl-th

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1101](#)

## References & Citations

- [INSPIRE HEP](#)  
([refers to](#) | [cited by](#))
- [NASA ADS](#)

Bookmark([what is this?](#))

