

# Accepted Manuscript

Analysis on Mass loss of different sized projectiles penetrating into concrete targets

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PII: S0020-7403(17)30124-8  
DOI: [10.1016/j.ijmecsci.2017.07.038](https://doi.org/10.1016/j.ijmecsci.2017.07.038)  
Reference: MS 3832



To appear in: *International Journal of Mechanical Sciences*

Received date: 16 January 2017  
Revised date: 28 June 2017  
Accepted date: 26 July 2017

Please cite this article as: Hua-wei Yang , Xiao-chao Jin , Jie Zhang , Zhi-hua Wang , Zhi-yong Wang , Analysis on Mass loss of different sized projectiles penetrating into concrete targets, *International Journal of Mechanical Sciences* (2017), doi: [10.1016/j.ijmecsci.2017.07.038](https://doi.org/10.1016/j.ijmecsci.2017.07.038)

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## Highlights

- Dynamic resistance acting on projectile nose strongly depends on the diameter of projectile.
- The friction coefficient between projectile and concrete is described quantitatively by hardness and strength of target and projectile materials.
- Larger projectiles suffer much less relative mass loss than smaller projectiles at the same velocity.
- The model can effectively predict mass loss and nose shape change of different sized projectiles with initial impact velocity below 1500m/s.

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