### Accepted Manuscript

Title: Analytical and molecular dynamics studies on the impact loading of single-layered graphene sheet by fullerene

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PII:	S0169-4332(17)33729-7
DOI:	https://doi.org/10.1016/j.apsusc.2017.12.141
Reference:	APSUSC 38011
To appear in:	APSUSC
Received date:	14-8-2017
Revised date:	6-11-2017
Accepted date:	17-12-2017

Please cite this article as: Hosseini-Hashemi S, Sepahi-Boroujeni A, Sepahi-Boroujeni S, Analytical and molecular dynamics studies on the impact loading of single-layered graphene sheet by fullerene, *Applied Surface Science* (2010), https://doi.org/10.1016/j.apsusc.2017.12.141

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## ACCEPTED MANUSCRIPT

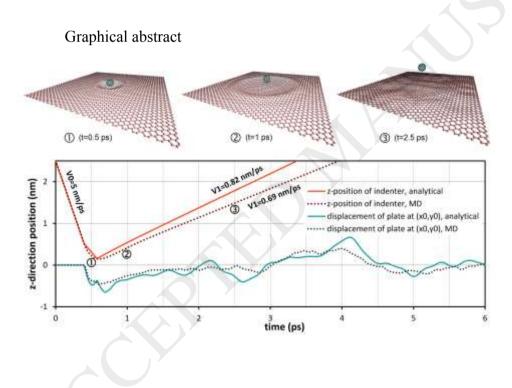
### Analytical and molecular dynamics studies on the impact loading of single-layered graphene sheet by fullerene

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#### Highlights:

- Presented analytical method for impact study of nanoplate shows acceptable agreements with MD results.
- A conceptual contact law is derived to explain interaction force between a hollow nano-indenter and a planner nano-target.

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