Accepted Manuscript

Yield behavior of polystyrene at strain rate 10⁶/s under quasi-isentropic compression

Xuping Zhang, Binqiang Luo, Gang Wu, Guiji Wang, Fuli Tan, Jianheng Zhao, Chengwei Sun

PII: S0167-6636(18)30043-7

DOI: 10.1016/j.mechmat.2018.05.003

Reference: MECMAT 2877

To appear in: Mechanics of Materials

Received date: 18 January 2018
Revised date: 5 April 2018
Accepted date: 8 May 2018



Please cite this article as: Xuping Zhang, Binqiang Luo, Gang Wu, Guiji Wang, Fuli Tan, Jianheng Zhao, Chengwei Sun, Yield behavior of polystyrene at strain rate 10⁶/s under quasi-isentropic compression, *Mechanics of Materials* (2018), doi: 10.1016/j.mechmat.2018.05.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights:

- The isentropic elastic limit of polystyrene at strain rate $\sim 10^6/\text{s}$ was obtained.
- The derived initial yield strength is 4 times the value by quasi-static compression.
- Dynamic response of polystyrene was predicted well by obtained constitutive model.



Download English Version:

https://daneshyari.com/en/article/7178479

Download Persian Version:

https://daneshyari.com/article/7178479

<u>Daneshyari.com</u>