

Accepted Manuscript

Estimation of yield and ultimate stress using the Small Punch Test method applied to non-standard specimens: A computational study validated by experiments

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PII: S0020-7403(17)31476-5
DOI: [10.1016/j.ijmecsci.2017.11.040](https://doi.org/10.1016/j.ijmecsci.2017.11.040)
Reference: MS 4056



To appear in: *International Journal of Mechanical Sciences*

Received date: 1 June 2017
Revised date: 30 October 2017
Accepted date: 27 November 2017

Please cite this article as: E. Priel , B. Mittelman , S. Haroush , A. Turgeman , R. Shneck , Y. Gelbstein , Estimation of yield and ultimate stress using the Small Punch Test method applied to non-standard specimens: A computational study validated by experiments, *International Journal of Mechanical Sciences* (2017), doi: [10.1016/j.ijmecsci.2017.11.040](https://doi.org/10.1016/j.ijmecsci.2017.11.040)

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Highlights:

- Yield and UTS of thin specimens cannot be determined using classical SPT analysis.
- A computational study of non-standard SPT including specimen failure is provided.
- A novel method is proposed for evaluating Yield and UTS from non-standard SPT.
- Correction functions that account for different SPT setup parameters are provided.
- A good estimation was obtained compared to experiments using the proposed method

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