

Accepted Manuscript

Surface-modified steel sheets and corrugated panels in three-point bending

S.P. Mai , C.S. Wen , J. Lu

PII: S0020-7403(18)30601-5
DOI: [10.1016/j.ijmecsci.2018.04.024](https://doi.org/10.1016/j.ijmecsci.2018.04.024)
Reference: MS 4279



To appear in: *International Journal of Mechanical Sciences*

Received date: 27 February 2018
Revised date: 10 April 2018
Accepted date: 16 April 2018

Please cite this article as: S.P. Mai , C.S. Wen , J. Lu , Surface-modified steel sheets and corrugated panels in three-point bending, *International Journal of Mechanical Sciences* (2018), doi: [10.1016/j.ijmecsci.2018.04.024](https://doi.org/10.1016/j.ijmecsci.2018.04.024)

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.

Highlights

- Nano-structured material is made by surface mechanical attrition treatment (SMAT)
- SMAT-treated stainless steel sheets are explored for out-of-plane bending
- The SMAT method is most efficient at the locations of high stress concentrations
- The bending strength of steel sheets is increased by SMAT by a maximum factor of 2
- The combination of SMAT and corrugation is a good choice for lightweight structures

Download English Version:

<https://daneshyari.com/en/article/7173670>

Download Persian Version:

<https://daneshyari.com/article/7173670>

[Daneshyari.com](https://daneshyari.com)