3. AU2021102727 - METHOD AND SYSTEM FOR DETERMINING HEAT AFFECTED ZONE DURING THE LASER BEAM DRILLING OFHYBRID COMPOSITE

National Biblio. Data Description Claims Drawings Documents

PermaLink Machine translation

Office
Australia

Application Number
2021102727

Application Date
21.05.2021

Publication Number
2021102727

Publication Date
17.06.2021

Publication Kind
A4

IPC
B29C 70/08 | B29C 70/34 | G01N 3/58 | C08J 5/24

CPC
B29C 70/083 | G01N 2203/0096 | G01N 2203/0682 | G01N 2203/0694 | G01N 3/58 | C08J 2363/00

View more classifications

Applicants
Jain, Akshay Dr.
Shrivastava, Yogesh Dr.
Singh, Bhagat Dr.

Inventors
Jain, Akshay
Shrivastava, Yogesh
Singh, Bhagat

Agents
Shrivastava, Dr. Yogesh

Title
[EN] METHOD AND SYSTEM FOR DETERMINING HEAT AFFECTED ZONE DURING THE LASER BEAM DRILLING OFHYBRID COMPOSITE

21 May 202
2021102727

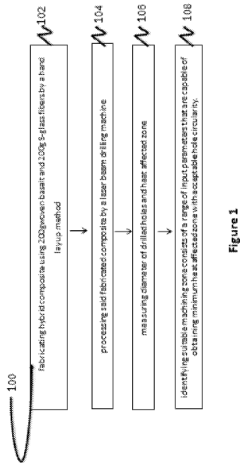

Figure 1

Abstract
[EN] The present disclosure relates to a process for fabricating hybrid composite and identifying safe machining range of input parameters for machining of fabricated hybrid basalt glass composite In this disclosure a glass hybrid composite has been fabricated and machined using laser beam drilling, to predict a safe machining zone pertaining to high drill quality with minimum heat affected zone and maximum hole-circularity. The prediction of the zone has been done by mathematical modeling using response surface methodology. The obtained zone has also been validated by performing more experiments. Moreover, the dependency of hole circularity and heat affected zone on input parameters have also been discussed. From the results, it is evident that the obtained zone is capable of minimizing the heat affected zone with acceptable hole-circularity.