

# **ТЕЗИСЫ ДОКЛАДОВ**

## **МЕЖДУНАРОДНАЯ КОНФЕРЕНЦИЯ «Перспективные материалы с иерархической структурой для новых технологий и надежных конструкций»**

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**FEASIBILITY OF SPHERICAL-SHAPED TOOL-PROBE FOR FRICTION-STIR  
WELDING OF AL-MG-MN SHEETS**

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In the present work, a new design for the friction-stir welding (FSW) tool was introduced. The newly developed tool included a conventional concave-shaped shoulder and a semi-spherical probe. The semi-spherical geometry of the tool probe was suggested to enhance material flow during FSW and thus to widen the FSW processing window.

The feasibility of the new tool design as well as its effect on microstructure and properties of the produced welds were for studied

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