

(54) Title of the invention : A Single-step Method for Production of Magnetorheological (MR) Fluid using Spark Discharge Technique

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(57) Abstract :

TITLE: A Single-step Method for Production of Magnetorheological (MR) Fluid using Spark Discharge Technique ABSTRACT
According to an aspect of the present disclosure, a single-step method for production of Magnetorheological (MR) fluid using Spark Discharge technique is construed. A tool electrode in the present invention is moved toward the workpiece, a spark is initiated in a single instance by using spark discharge technique and helps to remove the workpiece material in the form of debris resulting in the production of magnetic debris in the carrier fluid in situ. The produced debris uniformly dispersed in the carrier fluid thereby producing the Magnetorheological (MR) fluid in a single-step. The present invention achieves less than 20 microns uniform sized magnetic particles.

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