

عنوان مقاله:

Electrorheological nanofluids: preparation and characterization

محل انتشار:

همایش کاربرد نانوتکنولوژی در صنایع نفت و پتروشیمی (سال: 1390)

تعداد صفحات اصل مقاله: 13

نویسندگان:

Pooyan Forooghy Zadeh - *Islamic azad university, Gachsaran branch*

Mina Alizadeh - *Islamic azad university, Gachsaran branch*

خلاصه مقاله:

Electrorheological fluid (ER) consists of fine solid particles dispersed in a liquid dielectric. These fluids have the remarkable property of being able to "solidify" in the presence of an electric field, with a response time of milliseconds, and then resume their original property (liquid state) when the electric field is removed. Recent advances in the development of new ER fluids have significantly increased their performance. These new fluids exploit the properties of very small particles (50-100 nm) having appropriate physical characteristics. We present here the results obtained in the framework of a multidisciplinary research group to develop and characterize fluids ER "giant impact" and to develop microsystems for studying the formation and behavior of particle agglomerates under constraints electrical and mechanical.

کلمات کلیدی:

electrorheological, dielectric materials, nanofluids, electric field

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/112642>

