OAK RIDGE NATIONAL LABORATORY
Managed by UT-Battelle for the Department of Energy

Creation of Spinel and Functionally Graded Nano-Materials through Displacement Reactions

Disclosure Number

201002495

Technology Summary

Unique materials were produced through alteration of a displacement reaction process to contain specific nano-sized chemical phases and/or engineered structures. The alteration of the chemistry and structure of these materials is believed to lead to improved properties (mechanical, thermal, electrical, etc.) over conventional materials. Therefore, they are expected to show improved performance in applications such as high wear/corrosion resistant refractory shapes for industrial applications, lightweight vehicle braking system components, and lower cost/higher performance military body and vehicle armor.

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