

## Title (en)

CERAMIC-CERAMIC COMPOSITES AND PROCESS THEREFOR, NUCLEAR FUELS FORMED THEREBY, AND NUCLEAR REACTOR SYSTEMS AND PROCESSES OPERATED THEREWITH

## Title (de)

KERAMIK-KERAMIK-VERBUNDSTOFFE UND VERFAHREN DAFÜR, DARAUS GEFORMTE NUKLEARE BRENNSTOFFE SOWIE KERNREAKTORSYSTEME UND DAMIT DURCHGEFÜHRTE VERFAHREN

## Title (fr)

COMPOSITES CÉRAMIQUE-CÉRAMIQUE ET PROCÉDÉ POUR CEUX-CI, COMBUSTIBLES NUCLÉAIRES FORMÉS DE CETTE FAÇON, ET SYSTÈMES DE RÉACTEUR NUCLÉAIRE ET PROCÉDÉS MIS EN UVRE AVEC LESDITS COMPOSITES

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## Application

**EP 11831301 A 20110927**

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## Abstract (en)

[origin: WO2012047657A2] A process of producing ceramic-ceramic composites, including but not limited to nuclear fuels, and composites capable of exhibiting increased thermal conductivities. The process includes milling a first ceramic material to produce a powder of spheroidized particles of the first ceramic material, and then co-milling particles of a second ceramic material with the spheroidized particles of the first ceramic material to cause the particles of the second ceramic material to form a coating on the spheroidized particles of the first material. The spheroidized particles coated with the particles of the second ceramic material are then compacted and sintered to form the ceramic-ceramic composite, in which the second ceramic material forms a continuous phase completely surrounding the spheroidized particles of the first ceramic material.

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- [X] GB 878911 A 19611004 - GEN ELECTRIC
- [A] US 5255299 A 19931019 - HIRAI MUTSUMI [JP], et al
- [A] US 3865746 A 19750211 - RUBIN JACK A, et al
- [X] SARMA K H ET AL: "New processing methods to produce silicon carbide and beryllium oxide inert matrix and enhanced thermal conductivity oxide fuels", JOURNAL OF NUCLEAR MATERIALS, vol. 352, no. 1, 31 December 2006 (2006-12-31), pages 324 - 333, XP029176565, ISSN: 0022-3115, DOI: 10.1016/J.JNUCMAT.2006.02.090
- See references of WO 2012047657A2

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## DOCDB simple family (application)

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