

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Grain Growth in Cerium Metal JASON COOLEY, Los Alamos National Laboratory, MARTHA KATZ, None, CHARLES MIELKE, JOEL MONTALVO, Los Alamos National Laboratory — We report on grain growth in forged and rolled cerium plate for temperatures from 350 to 700 degrees C and times from 30 to 120 minutes. The cerium was made by arc-melting into a 25 mm deep by 80 mm diameter copper mold. The resulting disk was forged at room temperature to a 25% reduction of thickness four times with a 350 degree C strain relief heat treatment for 60 minutes between forging steps. The resulting 8 mm thick plate was clock rolled at room temperature to a 25% reduction of thickness three times with a 350 C strain relief heat treatment between steps resulting in a plate approximately 3 mm thick. 5 x 10 mm coupons were cut from the plate for the grain growth study.

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Date submitted: 09 Nov 2015

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