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Magnetism and lattice disorder in uranium intermetallics

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Author

Booth, Corwin H.

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Magnetism and lattice disorder in uranium intermetallics

Corwin H. Booth

The Glenn T. Seaborg Center, Lawrence Berkeley National Laboratory

Berkeley, California 94720 USA

chbooth@lbl.gov

Uranium intermetallic systems display a wide range of magnetic behavior in the ground state, including antiferromagnetism and Kondo pairing of the f electrons with the conduction band. When significant disorder is introduced into the magnetic interactions, one can obtain a spin glass or a so-called “non-Fermi liquid.” We will discuss aspects of how lattice disorder can create these disordered states, and consider indications from magnetic or electronic behavior that lattice disorder is important. These results will be contrasted to those from potentially well-ordered non-Fermi liquids.

Preferred session No.: 2 (Magnetism, etc.)

Last name: Booth

First name: Corwin H.

Mailing Address:

Lawrence Berkeley National Laboratory

MS 70A-1150

Berkeley, CA 94720

USA

TEL: +01-510-486-6079

FAX: +01-510-486-5596

e-mail: chbooth@lbl.gov

Number of accompanying persons who will not attend the session: 0