Abstract Submitted for the MAR06 Meeting of The American Physical Society

The Structural Database¹ NIKOLAI ZARKEVICH, D.D. JOHNSON,

Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign. — A Structural Database can be used as a universal tool for global accumulation and integration of structural and energy data from different methods, people, and places. It allows data mining and data validation by direct comparison of structural data from different sources. Being combined with multi-scale methods (e.g., ThermoToolkit), it can significantly reduce the cost of materials design. We exemplify these and other benefits of the Structural Database, and demonstrate its working prototype, available at http://data.mse.uiuc.edu. This database is a product of multi-disciplinary research involving Physics, Computer Science, and Materials Science and Engineering.

¹Development is supported in part by the U.S. Department of Energy through grant DE-FC36-05GO15064.

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Date submitted: 30 Nov 2005

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