

## Opacity data for stellar models and its uncertainties

J.E. Bailey<sup>1</sup>, T. Nagayama<sup>1</sup>, G.P. Loisel<sup>1</sup>, G.A. Rochau<sup>1</sup>, C. Blancard<sup>2</sup>, J. Colgan<sup>3</sup>, Ph. Cosse<sup>2</sup>, G. Faussurier<sup>2</sup>, C.J. Fontes<sup>3</sup>, F. Gilleron<sup>2</sup>, I. Golovkin<sup>4</sup>, S.B. Hansen<sup>1</sup>, G. Hazak<sup>5</sup>, C.A. Iglesias<sup>6</sup>, D.P. Kilcrease<sup>3</sup>, Y. Kurzweil<sup>5</sup>, J.J. MacFarlane<sup>4</sup>, R.C. Mancini<sup>7</sup>, R.M. More<sup>8</sup>, S.N. Nahar<sup>9</sup>, C. Orban<sup>9</sup>, J.-C. Pain<sup>2</sup>, A.K. Pradhan<sup>9</sup>, M. Sherrill<sup>3</sup>, and B.G. Wilson<sup>6</sup>

1 Sandia National Laboratories, Albuquerque, New Mexico

2 CEA, DAM, DIF, F-91297 Arpajon, France

3 Los Alamos National Laboratory, Los Alamos, New Mexico

4 Prism Computational Sciences, Madison, Wisconsin

5 Nuclear Research Center Negev, Israel

6 Lawrence Livermore National Laboratory, Livermore, California

7 University of Nevada, Reno, Nevada

8 RMorePhysics, Pleasanton, California

9 Ohio State University, Columbus, Ohio

Laboratory experiments have found iron opacity predictions are notably different from measurements performed at conditions similar to the boundary between the solar radiation and convection zones [Bailey et al., *Nature* (2015)]. The measurements help resolve discrepancies between helioseismology and solar models. However, it is essential to understand the differences between opacity predictions and measurements. New measurements with chromium, iron, and nickel are providing a systematic study of how opacity changes with temperature, density, and atomic number. Additional experiments are underway to extend the accessible temperature and density range and to measure the time-resolved temperature and density evolution. These experiments help further evaluate experiment error possibilities and constrain hypotheses for opacity model refinements.

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