

## **InterCarb: A community effort to improve inter-laboratory standardization of the carbonate clumped isotope thermometer using carbonate standards**

S.M. Bernasconi<sup>1</sup>, M. Daëron<sup>2</sup>, K.D. Bergmann<sup>3</sup>, M. Bonifacie<sup>4</sup>, A.N. Meckler<sup>5</sup>, H.P. Affek<sup>6</sup>, N. Anderson<sup>3</sup>, D. Bajnai<sup>7</sup>, E. Barkan<sup>6</sup>, E. Beverly<sup>8†</sup>, D. Blamart<sup>2</sup>, L. Burgener<sup>9</sup>, D. Calmels<sup>4†</sup>, C. Chaduteau<sup>4</sup>, M. Clog<sup>10</sup>, B. Davidheiser-Kroll<sup>11</sup>, A. Davies<sup>12††</sup>, F. Dux<sup>13†</sup>, J. Eiler<sup>14</sup>, B. Elliott<sup>15</sup>, A. C. Fetrow<sup>11</sup>, J. Fiebig<sup>7</sup>, S. Goldberg<sup>3</sup>, M. Hermoso<sup>4,23</sup>, K.W. Huntington<sup>16</sup>, E. Hyland<sup>9</sup>, M. Ingalls<sup>14†</sup>, M. Jaggi<sup>1</sup>, C.M. John<sup>12</sup>, A. B. Jost<sup>3</sup>, S. Katz<sup>8</sup>, J. Kelson<sup>8</sup>, T. Kluge<sup>12†</sup>, I.J. Kocken<sup>17</sup>, A. Laskar<sup>18</sup>, T.J. Leutert<sup>5†</sup>, D. Liang<sup>18</sup>, J. Lucarelli<sup>15</sup>, T. J. Mackey<sup>3†</sup>, X. Mangenot<sup>4,14</sup>, N. Meinicke<sup>5</sup>, S.E. Modestou<sup>5</sup>, I.A. Müller<sup>17</sup>, S. Murray<sup>19</sup>, A. Neary<sup>8</sup>, N. Packard<sup>8</sup>, B.H. Passey<sup>8</sup>, E. Pelletier<sup>8</sup>, S. Petersen<sup>8</sup>, A. Piasecki<sup>5††</sup>, A. Schauer<sup>16</sup>, K.E. Snell<sup>11</sup>, P.K. Swart<sup>20</sup>, A. Tripathi<sup>15</sup>, D. Upadhyay<sup>15</sup>, T. Vennemann<sup>21</sup>, I. Winkelstern<sup>8††</sup>, D. Yarian<sup>8</sup>, N. Yoshida<sup>22,24</sup>, N. Zhang<sup>22</sup>, M. Ziegler<sup>17</sup>

<sup>1</sup>Geological Institute, ETH Zürich, Sonneggstrasse 5, 8092 Zürich, Switzerland

<sup>2</sup>Laboratoire des Sciences du Climat et de l'Environnement, LSCE/IPSL, CEA-CNRS-UVSQ, Université Paris-Saclay, Orme des Merisiers, F-91191 Gif-sur-Yvette, France

<sup>3</sup>Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, Cambridge, MA 02139, USA

<sup>3†</sup>now at Earth and Planetary Sciences, University of New Mexico, Albuquerque, New Mexico, USA

<sup>4</sup>Université de Paris, Institut de Physique du Globe de Paris, CNRS, F-75005 Paris, France

<sup>4†</sup> now at Geosciences Paris Sud (GEOPS), Université Paris-Saclay, CNRS, 91405 Orsay, France

<sup>5</sup>Bjerknes Centre for Climate Research and Department of Earth Science, University of Bergen, Bergen, Norway

<sup>5†</sup>now at Max Planck Institute for Chemistry, Mainz, Germany; thomas.leutert@mpic.de

<sup>5††</sup>now at Department of Earth Sciences, Dartmouth College, Hanover, NH, USA

<sup>6</sup>Institute of Earth Sciences, Hebrew University of Jerusalem, Jerusalem, Israel

<sup>7</sup>Institute of Geosciences, Goethe University Frankfurt, Frankfurt am Main, Germany

- <sup>8</sup>Department of Earth and Environmental Sciences, University of Michigan, Ann Arbor, Michigan, USA
- <sup>8†</sup>now at Department of Earth and Atmospheric Sciences, University of Houston, Houston, Texas, USA
- <sup>8††</sup>now at Geology Department, Grand Valley State University, Allendale, Michigan, USA
- <sup>9</sup>Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, USA
- <sup>10</sup>Scottish Universities Environmental Research Centre (SUERC), Glasgow, Scotland
- <sup>11</sup>University of Colorado Boulder, Boulder, Colorado, USA
- <sup>12</sup>Imperial College, London, UK
- <sup>12†</sup>now at Karlsruher Institut für Technologie KIT
- <sup>12††</sup>now at Stockholm University
- <sup>13</sup>School of Geography, University of Melbourne, Australia
- <sup>13†</sup>now at School of Earth and Life Sciences, University of Wollongong, Australia
- <sup>14</sup>Geological and Planetary Sciences, California Institute of Technology, Pasadena, California, USA
- <sup>14†</sup>now at Department of Geosciences, The Pennsylvania State University, University Park, PA, USA
- <sup>15</sup>Department of Earth, Planetary, and Space Sciences, University of California Los Angeles, Los Angeles, CA, USA
- <sup>16</sup>University of Washington, Seattle, Washington, USA
- <sup>17</sup>Department of Earth Sciences, University of Utrecht, Utrecht, Netherlands
- <sup>18</sup>Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan
- <sup>19</sup>Macquarie University, Australia
- <sup>20</sup>RSMAS/MGS University of Miami, Miami, FL, USA
- <sup>21</sup>Institute of Earth Surface Dynamics, University of Lausanne, Lausanne, Switzerland
- <sup>22</sup>Earth-Life Science Institute, Tokyo Institute of Technology, Tokyo, Japan
- <sup>23</sup>Univ. Littoral Côte d'Opale, Univ. Lille, CNRS, Laboratoire d'Océanologie et de Géosciences (UMR 8187 LOG), 62930 Wimereux, France.

Corresponding authors: Stefano M. Bernasconi (stefano.bernasconi@erdw.ethz.ch)  
Mathieu Daëron (daeron@lsce.ipsl.fr)

**Contents of this file**  
**Figure S1, Figure S2**

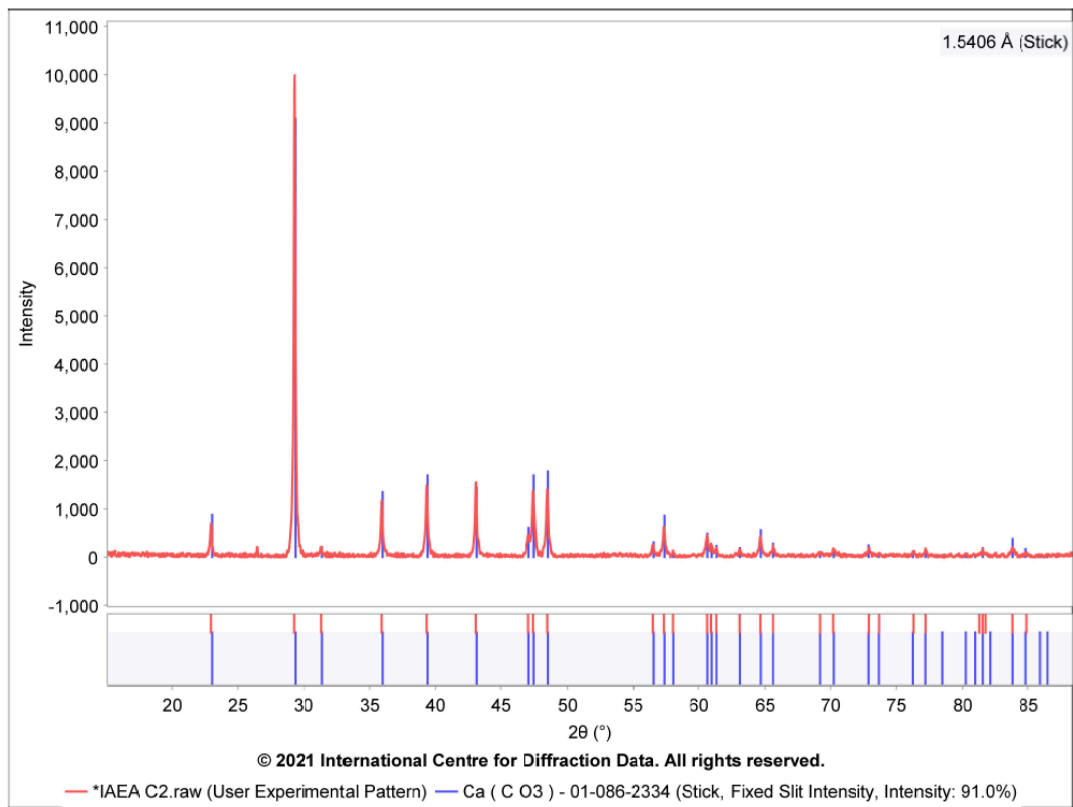


Figure S1. XRD pattern of IAEA-C2

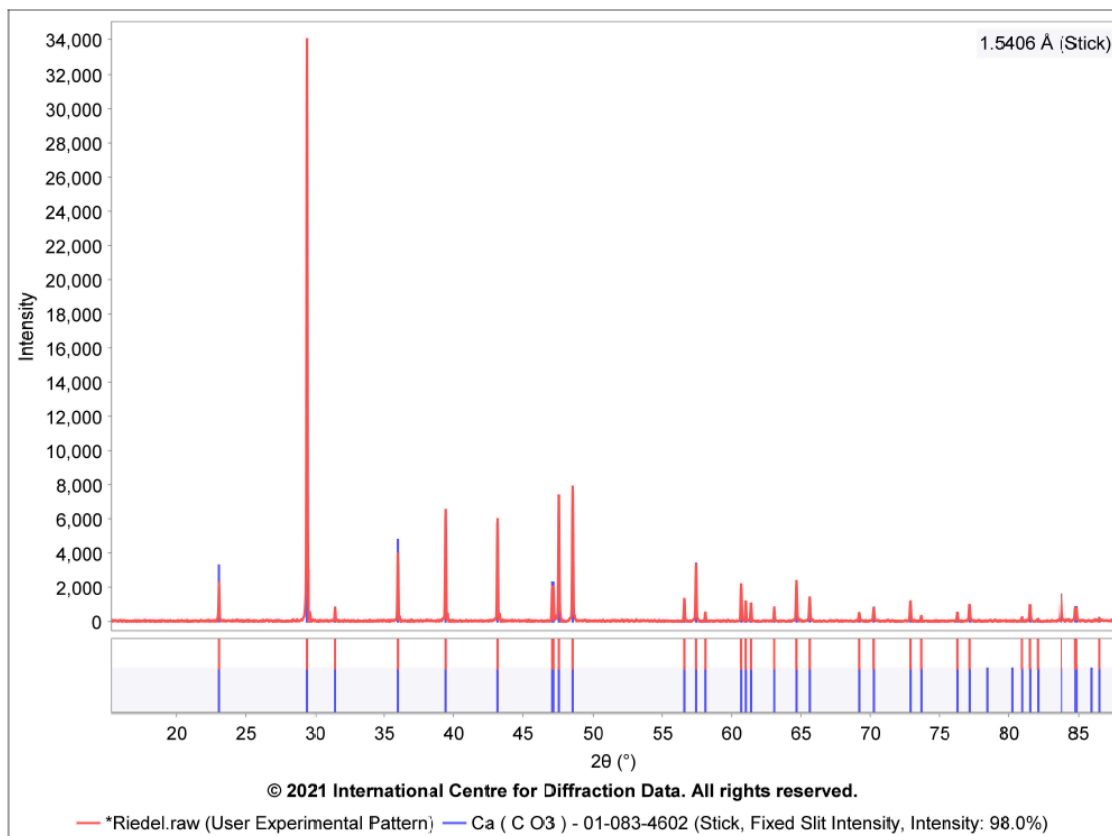


Figure S2. XRD pattern of ETH-4