

# Wataru Fujiya, Ph.D.

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## Contact information

Faculty of Science, Ibaraki University  
2-1-1 Bunkyo, Mito, Ibaraki 310-8512, JAPAN  
e-mail: [wataru.fujiya.sci@vc.ibaraki.ac.jp](mailto:wataru.fujiya.sci@vc.ibaraki.ac.jp)  
Phone: (+81-29) 228-8387

## Research interests

Isotope cosmochemistry, Astrophysics, Solar system formation, Ion microprobe

## Education

**Mar. 2012** Ph.D. The University of Tokyo, Tokyo, Japan  
**Mar. 2009** M.Sc. The University of Tokyo, Tokyo, Japan  
**Mar. 2007** B.Sc. The University of Tokyo, Tokyo, Japan

## Employment

**Apr. 2020-present** Associate Professor (Ibaraki University)  
**Apr. 2015-Mar. 2020** Assistant Professor (Ibaraki University)  
**Apr. 2013-Mar. 2015** Postdoctoral Fellow (Max-Planck-Institut für Chemie)  
**Apr. 2012-Mar. 2013** Research Fellow (PD) of JSPS  
**Apr. 2011-Mar. 2012** Research Fellow (DC2) of JSPS  
**Oct. 2009-Mar. 2011** Research assistant of the Japan Society for the Promotion of Science (JSPS) Global COE program at Tokyo Institute of Technology and the University of Tokyo

### *(Research visit)*

**Apr. 2012-Mar. 2013** Max-Planck-Institut für Chemie  
**Mar.-May 2010** Max-Planck-Institut für Chemie (supported by the JSPS Global COE program)

## Honors and Awards

**2016** Outstanding Contribution in Reviewing (Geochimica et Cosmochimica Acta)  
**2016** Ibaraki University president commendation for science (Encouraging prize) (Ibaraki University)  
**2015** Encouraging prize (The Geochemical Society of Japan)  
**2012** Encouraging prize for Ph.D. thesis (School of Science, The University of Tokyo)

## Memberships

American Geophysical Union  
The Meteoritical Society  
Geochemical Society

## Committee history

**2023-** Publications Committee, The Meteoritical Society  
**2019** The 82nd Annual Meeting of the Meteoritical Society, Local organizing committee

## Funding

**2023-2027** Grant-in-Aid for Scientific Research (A) (No. 23H00146), JPY 47,840,000  
**2022-2024** Grant-in-Aid for Scientific Research (B) (No. 22H01279), JPY 17,940,000  
**2020-2024** Grant-in-Aid for Scientific Research (A) (No. 20H00190), JPY 43,030,000  
**2020-2022** Grant-in-Aid for Challenging Research (Exploratory) (No. 20K20934), JPY 6,370,000  
**2019-2023** Grant-in-Aid for Scientific Research (A) (No. 19H00725), JPY 44,980,000  
**2018-2019** Grant-in-Aid for Scientific Research on Innovative Areas (Project Area: Aqua Planetology) (No. 18H04454), JPY 4,420,000  
**2017-2019** Grant-in-Aid for Scientific Research (B) (No. 17H02992), JPY 17,290,000  
**2017-2019** Grant-in-Aid for challenging Research (Exploratory) (No. 17K18814), JPY 5,980,000  
**2016-2019** Grant-in-Aid for Young Scientists (B) (No. 16K17838), JPY 4,030,000  
**2011-2012** Grant-in-Aid for JSPS Research Fellows (No. 11J09530), JPY 1,300,000

## Journal review

Science, Nature Geoscience, Scientific Reports, The Astrophysical Journal, The Astrophysical Journal Letters, Earth and Planetary Science Letters, Geochimica et Cosmochimica Acta, Meteoritics & Planetary Science, Geochemical Perspective Letters, Geochemical Journal, Polar Science, Earth, Planets and Space, Mass Spectrometry

## Publications

### Peer-reviewed journals

1) Fukai R., Usui T., **Fujiya W.**, Takano Y., Bajo K., Beck A., Bonato E., Chabot M. L., Furukawa Y., Genda H., Hibiya Y., Jourdan F., Kleine T., Koike M., Matsuoka M., Miura Y. N., Moynier F., Okazaki R., Russell S. S., Sumino H., Zolensky M. E., Sugahara H.,

Tachibana S., Sakamoto K., Abe M., Cho Y. and Kuramoto K. (2024)  
Curation protocol of Phobos sample returned by Martian Moons eXploration.  
*Meteoritics & Planetary Science*, 59, 321-337.

- 2) Nakanishi N., Yokoyama T., Ishikawa A., Walker R. J., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Guntam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., Morita M., Motomura K., Moynier F., Nakai I., Nagashima K., Nguyen A. N., Nittler L., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönбächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Yamashita K., Yin Q.-Z., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

Nucleosynthetic *s*-process depletion in Mo from Ryugu samples returned by Hayabusa2.  
*Geochemical Perspectives Letters*, 28, 31-36.

- 3) Bizzarro M., Schiller M., Yokoyama T., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Guntam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., Morita M., Moynier F., Motomura K., Nakai I., Nagashima K., Nesvorný D., Nguyen A. N., Nittler L., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönбächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

The magnesium isotope composition of samples returned from asteroid Ryugu.  
*The Astrophysical Journal Letters*, 958:L25 (9pp).

- 4) Yokoyama T., Wadhwa M., Iizuka T., Rai V. Guntam I., Hibiya Y., Masuda Y., Haba M. K., Fukai R., Hines R., Phelan N., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N.,

Davis A. M., Di Rocco T., **Fujiya W.**, Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Ireland T. R., Ishikawa A., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nagashima K., Nguyen A. N., Nittler L., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Walker R. J., Yamashita K., Yin Q.-Z., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

Water circulation in Ryugu asteroid affected the distribution of nucleosynthetic isotope anomalies in returned sample.

Science Advances, 9, eadi7048.

- 5) Tang H., Young E. D., Tafla L., Park C., Di Rocco T., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nagashima K., Nakai I., Nguyen A. N., Nittler L., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbächler M., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

The oxygen isotopic composition of samples returned from asteroid Ryugu with implications for the nature of the parent planetesimal.

The Planetary Science Journal, 4:144 (15pp).

- 6) Nguyen A. N., Mane P., Keller L. P., Piani L., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nagashima K., Nesvorný D., Nittler L., Onose M., Pack A., Park

C., Qin L., Russell S. S., Sakamoto N., Schönbächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

Abundant presolar grains and primordial organics preserved in carbon-rich exogenous clasts in asteroid Ryugu.

Science Advances, 9, eadh1003.

- 7) **Fujiya W.**, Kawasaki N., Nagashima K., Sakamoto N., Alexander C. M. O'D., Kita N. T., Kitajima K., Abe Y., Aléon J., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Itoh S., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Schönbächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)

Carbonate record of temporal change in oxygen fugacity and gaseous species in asteroid Ryugu.

Nature Geoscience, 16, 675-682.

- 8) Piani L., Nagashima K., Kawasaki N., Sakamoto N., Bajo K., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Itoh S., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Qin L., Russell S. S., Schönbächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S.,

- Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)  
Hydrogen isotopic composition of hydrous minerals in asteroid Ryugu.  
The Astrophysical Journal Letters, 946, L43 (11pp).
- 9) Paquet M., Moynier F., Yokoyama T., Dai W., Hu Y., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Nakai I., Nagashima K., Nesvorný D., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbachler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2023)  
Contribution of Ryugu-like material to Earth's volatile inventory by Cu and Zn isotopic analysis.  
Nature Astronomy, 7, 182-189.
- 10) Kawasaki N., Nagashima K., Sakamoto N., Matsumoto T., Bajo, K., Wada S., Igami Y., Miyake A., Noguchi T., Yamamoto D., Russell, S. S., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Schönbachler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2022)  
Oxygen isotopes of anhydrous primary minerals show kinship between asteroid Ryugu and comet 81P/Wild2.  
Science Advances, 8, 50.
- 11) Sugawara S., **Fujiya W.**, Kagi H., Yamaguchi A. and Hashizume K. (2022)

Heat-induced dolomitization of amorphous calcium magnesium carbonate (ACMC) in a CO<sub>2</sub>-filled closed System.

ACS Omega, 7, 44670–44676.

- 12) Vacher L. G. and **Fujiya W.** (2022)

Recent advances in our understanding of water and aqueous activity in chondrites.

Elements, 18, 175-180.

- 13) Hopp T., Dauphas N., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Habu M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nakai I., Nagashima K., Nesvorný D., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbachler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2022)

Ryugu's nucleosynthetic heritage from the outskirts of the Solar System.

Science Advances, 8, 46.

- 14) Moynier F., Dai W., Yokoyama T., Hu Y., Paquet M., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Habu M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Nakai I., Nagashima K., Nesvorný D., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbachler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yoneda S., Young E. D., Yui H., Zhang A.-C., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Miyazaki A., Nakato A., Nishimura M., Okada T., Yada T., Yogata K., Nakazawa S., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yoshikawa M., Tachibana S. and Yurimoto H. (2022)

The Solar System calcium isotopic composition inferred from Ryugu samples.

Geochemical Perspectives Letters, 24, 1-6.

- 15) Barosch J., Nittler L. R., Wang J., Alexander C. M. O'D., De Gregorio B. T., Engrand C., Kebukawa Y., Nagashima K., Stroud R. M., Yabuta H., Abe Y., Aléon J., Amari S., Amelin Y., Bajo K., Bejach L., Bizzarro M., Bonal L., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Cody G. D., Dartois E., Dauphas N., Davis A. M., Dazzi A., Deniset-Besseau A., Di Rocco T., Duprat E., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hashiguchi M., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kamide K., Kawasaki N., Kilcoyne A. L. D., Kita N. T. Kitajima K., Kleine T., Komatani S., Komatsu M., Krot A. N., Liu M.-C., Martins Z., Masuda Y., Mathurin J., McKeegan K. D., Montagnac G., Morita M., Mostefaoui S., Motomura K., Moynier F., Nakai I., Nguyen A., Ohigashi T., Okumura T., Onose M., Pack A., Park C., Piani L., Qin L., Quirico E., Remusat L., Russell S. S., Sakamoto N., Sandford S. A., Schönbächler M., Shigenaka M., Suga H., Tafla L., Takahashi Y., Takeichi Y., Tamenori Y., Tang H., Terada K., Terada Y., Usui T., Vendier-Paoletti M., Wada S., Wadhwa M., Wakabayashi D., Walker R. J., Yamashita K., Yamashita S., Yin Q.-Z., Yokoyama T., Yoneda S., Young E. D., Yui H., Zhang A.-C., Abe M., Miyazaki A., Nakato A., Nakazawa S., Nishimura M., Okada T., Saiki T., Tanaka S., Terui F., Tsuda Y., Watanabe S., Yada T., Yogata K., Yoshikawa M., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Tachibana S. and Yurimoto, H. (2022)

Presolar stardust in asteroid Ryugu.

The Astrophysical Journal Letters, 935, L3 (12pp) (arXiv:2208.07976).

- 16) Yokoyama T., Nagashima K., Nakai I., Young E. D., Abe Y., Aléon J., Alexander C. M. O'D., Amari S., Amelin Y., Bajo K., Bizzarro M., Bouvier A., Carlson R. W., Chaussidon M., Choi B.-G., Dauphas N., Davis A. M., Di Rocco T., **Fujiya W.**, Fukai R., Gautam I., Haba M. K., Hibiya Y., Hidaka H., Homma H., Hoppe P., Huss G. R., Ichida K., Iizuka T., Ireland T. R., Ishikawa A., Ito M., Itoh S., Kawasaki N., Kita N. T. Kitajima K., Kleine T., Komatani S., Krot A. N., Liu M.-C., Masuda Y., McKeegan K. D., Morita M., Motomura K., Moynier F., Nguyen A., Nittler L. R., Onose M., Pack A., Park C., Piani L., Qin L., Russell S. S., Sakamoto N., Schönbächler M., Tafla L., Tang H., Terada K., Terada Y., Usui T., Wada S., Wadhwa M., Walker R. J., Yamashita K., Yin Q.-Z., Yoneda S., Yui H., Zhang A.-C., Connolly, H. C., Jr. Lauretta D. S., Nakamura T., Naraoka H., Noguchi T., Okazaki R., Sakamoto K., Yabuta H., Abe M., Arakawa M., Fujii A., Hayakawa M., Hirata N., Hirata N., Honda R., Honda C., Hosoda S., Iijima Y., Ikeda H., Ishiguro M., Ishihara Y., Iwata T., Kawahara K., Kikuchi S., Kitazato K., Matsumoto K., Matsuoka M., Michikami T., Mimasu Y., Miura A., Morota T., Nakazawa S., Namiki N., Noda H., Noguchi R., Ogawa N., Ogawa K., Okada T., Okamoto C., Ono G., Ozaki M., Saiki T., Sakatani N., Sawada H., Senshu H., Shimaki Y., Shirai K., Sugita S., Takei Y., Takeuchi H., Tanaka S.,

Tatsumi E., Terui F., Tsuda Y., Tsukizaki R., Wada K., Watanabe S., Yamada M., Yamada T., Yamamoto Y., Yano H., Yokota Y., Yoshihara K., Yoshikawa M., Yoshikawa K., Furuya S., Hatakeda K., Hayashi T., Hitomi Y., Kumagai K., Miyazaki A., Nakato A., Nishimura M., Soejima H., Suzuki A., Yada T., Yamamoto D., Yogata K., Yoshitake M., Tachibana S. and Yurimoto H. (2022)

Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites.

Science, 379, 6634.

- 17) **Fujiya W.**, Higashi H., Hibiya Y., Sugawara S., Yamaguchi A., Kimura M. and Hashizume K. (2022)

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#### **International conferences (first author only)**

- 1) Fujiya W., Ushikubo T., Sugawara S., Yamaguchi A., Fukuda K., Lee M. R., Terada K., Bland P. A. and Travis B. J. (2023)

Oxygen isotopic composition of dolomite in Ryugu: New insights into the thermal history of the Ryugu parent body.

Hayabusa 2023 Symposium (Sagamihara-online hybrid, Japan, oral)

- 2) Fujiya W., Kogiso R., Sugawara S. and Hashizume K. (2023)

On the Mn-Cr dating of Ryugu carbonates using ion-implanted standard materials.

86<sup>th</sup> Annual Meteoritical Society Meeting (Los Angeles, USA, poster)

- 3) Fujiya W., Krot A. N. and Pravdivtseva O. V. (2023)

Chronology of metasomatic/aqueous alteration.

ISSI Workshop on “Evolution of the Solar System: Constraints from Meteorites” (Bern, Switzerland, oral)

- 4) Fujiya W., Kawasaki N., Nagashima K., Alexander C. M. O’D. Yurimoto H., The Hayabusa2-initial-analysis chemistry team and The Hayabusa2-initial-analysis core (2022)

Oxygen and carbon isotope compositions of Ryugu’s carbonates: Constraints on the conditions of aqueous alteration.

Hayabusa 2022 Symposium (Sagamihara-online hybrid, Japan, oral)

- 5) Fujiya W., Furukawa Y., Sugahara H., Koike M., Bajo K., Chabot N. L., Miura Y. N., Moynier F., Russell S. S., Tachibana S., Takano Y., Usui T. and Zolensky M. E. (2021)

Scientific importance of the sample analyses of Phobos regolith and the analytical protocols of returned samples by the MMX mission.

Hayabusa 2021 Symposium (Online, oral, **invited**)

- 6) Fujiya W. (2021)

Small body exploration for understanding of Earth’s building blocks.

ISAS Planetary Exploration Workshop 2021 (Online, oral, **invited**)

- 7) Fujiya W., Furukawa Y., Sugahara H., Koike M., Bajo K., Chabot N. L., Miura Y. N., Moynier F., Russell S. S., Tachibana S., Takano Y., Usui T. and Zolensky M. E. (2021)

Sample analysis of Phobos regolith returned by JAXA's Martian Moons eXploration

- (MMX) mission and its scientific objectives.  
Goldschmidt 2021 (Online, e-presentation with a flash talk)
- 8) Fujiya W. (2021)  
Material transport in the Solar System: Insights from MMX sample analysis.  
4<sup>th</sup> MMX Science Team Meeting (Online, oral, **invited**)
  - 9) Fujiya W., Higashi H., Hibiya Y., Sugawara S., Yamaguchi A., Kimura M. and Hashizume K. (2020)  
Evolution of thermally metamorphosed C-complex asteroids inferred from a heated CM chondrite Jbilet Winselwan.  
JpGU-AGU Joint Meeting: Virtual (Online, iPoster with a flash talk, **invited**)
  - 10) Fujiya W., Higashi H., Yamaguchi A., Kimura M. and Hashizume K. (2019)  
Anhydrite in the Jbilet Winselwan CM chondrite: Implications for the heat source of post-alteration thermal metamorphism.  
82<sup>nd</sup> Annual Meteoritical Society Meeting (Sapporo, Japan, oral)
  - 11) Fujiya W., Aoki Y., Ushikubo Y. and Hashizume K. (2019)  
Evolution of Fluid Composition Inferred from Calcite in the Yamato 791198 CM Chondrite.  
50<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, poster)
  - 12) Fujiya W., Hoppe P., Fukuda K., Lindgren P. Lee M. R., Koike M., Shirai K. and Sano Y. (2018)  
Carbon isotopic ratios of carbonate in CM chondrites and the Tagish Lake meteorite.  
49<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, oral)
  - 13) Fujiya W., Fukuda K., Lindgren P. Lee M. R., Koike M. and Sano Y. (2017)  
Carbon isotopic ratios of calcite grains in the LAP 031166 CM chondrite: Implications for possible link between CM and cometary ices.  
Hayabusa 2017: Symposium of the Solar System Materials (Tachikawa, Japan, oral)
  - 14) Fujiya W. (2017)  
Primitive meteorites with abundant water.  
JSPS Core-to-Core Program “Planet2” Symposium 2017 (Nice, France, oral, **invited**)
  - 15) Fujiya W. (2016)  
How can we know the initial properties of Ryugu? Clues from oxygen isotopes and carbonate minerals.  
Hayabusa 2: The 1st meeting of multi-scale asteroid science group (Sagamihara, Japan, oral)
  - 16) Fujiya W., Bochsler P., Wieler R., Hoppe P. and Ott U. (2016)  
Solar wind boron in ilmenite grains from lunar soil 71501.  
79<sup>th</sup> Annual Meteoritical Society Meeting (Berlin, Germany, poster)

- 17) Fujiya W. (2016)  
Fluid flow in small bodies induced by hydrogen gas pressure.  
Goldschmidt 2016 (Yokohama, Japan, oral)
- 18) Fujiya W. (2016)  
Current status and future prospect of isotope cosmochemistry and mass spectrometry.  
Pre-Forum Meeting on Future Cosmochemistry for the JSPS "Science in Japan Forum  
2016 (Washington D.C., USA, oral, **invited**)
- 19) Fujiya W. (2016)  
Fluid flow in hydrous asteroids induced by H<sub>2</sub> gas pressure.  
Japan Geoscience Union Meeting 2016 (Chiba, Japan, oral)
- 20) Fujiya W., Fukuda K., Koike M., Ishida A. and Sano Y. (2016)  
Oxygen and carbon isotopic ratios of carbonates in the Nogoya CM chondrite.  
47<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, poster)
- 21) Fujiya W., Fukuda K., Ishida A. and Sano Y. (2015)  
Oxygen- and carbon-isotope evolution in fluids during aqueous alteration.  
Hayabusa 2015: Symposium of the Solar System Materials (Sagamihara, Japan, oral)
- 22) Fujiya W., Knut Metzler and Hoppe P. (2015)  
Lithium distribution in equilibrated ordinary chondrites: Implications for their cooling  
history.  
Goldschmidt 2015 (Prague, Czech Republic, poster)
- 23) Fujiya W., Hoppe P., Ott U., Meier M. M. M. and Bochsler P. (2014)  
Lithium and boron isotopic ratios of olivine grains from Itokawa asteroid.  
Hayabusa 2014: Symposium of the Solar System Materials (Sagamihara, Japan, oral)
- 24) Fujiya W., Sugiura N., Marrocchi Y., Takahata N., Hoppe P., Shirai K., Sano Y. and  
Hiyagon H. (2014)  
Carbon and O isotopic ratios, trace element abundances and cathodoluminescence  
observation of calcite in Murchison.  
76<sup>th</sup> Annual Meteoritical Society Meeting (Casablanca, Morocco, oral)
- 25) Fujiya W., Hoppe P., Ott U., Meier M. M. M. and Bochsler, P. (2014)  
Solar wind boron observed in a Hayabusa sample and a gas-rich meteorite.  
45<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, oral)
- 26) Fujiya W., Hoppe P., Zinner E., Pignatari M. and Herwig, F. (2014)  
A born-again AGB star origin of Type AB silicon carbide grains inferred from radiogenic  
sulfur-32.  
45<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, poster)
- 27) Fujiya W., Hoppe P., Ott U. and Meier M. M. M. (2013)

- Lithium-boron and helium-neon analyses on asteroidal regolith returned by the Hayabusa mission.  
Paneth Kolloquium, (Nördlingen, Germany, oral)
- 28) Fujiya W., Hoppe P., Ott U. and Meier M. M. M. (2013)  
Lithium, boron and light noble gas analyses on the surface of the Itokawa asteroidal regolith returned by the Hayabusa mission.  
Hayabusa 2013: Symposium of the Solar System Materials (Sagamihara, Japan, oral, **invited**)
- 29) Fujiya W., Hoppe P. and Ott U. (2013)  
Boron isotopic ratio on the surface of the Itokawa asteroidal regolith returned by the Hayabusa mission.  
75<sup>th</sup> Annual Meteoritical Society Meeting (Edmonton, Canada, oral)
- 30) Fujiya W., Hoppe P. and Ott U. (2013)  
Search for the Solar Wind Boron on the Itokawa Asteroidal Regolith returned by the Hayabusa Spacecraft.  
Dusty Visions 2013 (Stuttgart, Germany, oral)
- 31) Fujiya W., Hoppe P. and Zinner E. (2013)  
A possible supernova origin of type AB presolar silicon carbide grains.  
44<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, oral)
- 32) Fujiya W. and Hoppe P. (2012)  
Possible supernova and nova origins for presolar silicon carbide grains of type AB.  
Paneth Kolloquium, (Nördlingen, Germany, oral)
- 33) Fujiya W., Sugiura N. and Sano Y. (2011)  
Alteration history in the CI chondrite parent body inferred from Mn-Cr dating of carbonates.  
74<sup>th</sup> Annual Meteoritical Society Meeting (Greenwich, UK, oral)
- 34) Fujiya W., Hoppe P. and Ott U. (2011)  
Hints for neutrino-process boron recorded in stardust from supernovae.  
42<sup>nd</sup> Lunar and Planetary Science Conference (Houston, USA, poster)
- 35) Fujiya W., Sugiura N. and Sano Y. (2011)  
Mn-Cr age of dolomite in the Ivuna CI chondrite.  
42<sup>nd</sup> Lunar and Planetary Science Conference (Houston, USA, oral)
- 36) Fujiya W., Sugiura N., Ichimura K., Takahata N. and Sano Y. (2010)  
Mn-Cr ages of carbonates in Murchison and ALH83100 CM chondrites.  
41<sup>st</sup> Lunar and Planetary Science Conference (Houston, USA, oral)
- 37) Fujiya W., Sugiura N., Ichimura K., Takahata N. and Sano Y. (2009)

A synthetic calcite standard for determination of the relative Mn/Cr sensitivity factor.

AGU Fall Meeting (San Francisco, USA, oral)

- 38) Fujiya W., Ichimura K., Takahata N., Sugiura N. and Sano Y. (2009)

A Preliminary Study on  $^{55}\text{Mn}/^{52}\text{Cr}$  Relative Sensitivity for a Synthetic Carbonate: Technical Details.

72<sup>nd</sup> Annual Meteoritical Society Meeting (Nancy, France, poster)

- 39) Fujiya W., Sugiura N., Hiyagon H., Takahata N. and Sano Y. (2009)

Ion Probe Analysis of  $^{54}\text{Cr}$  Isotopic Compositions of an Organic Residue from Murchison CM2 Chondrite.

40<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, poster).

- 40) Fujiya W. and Sugiura N. (2008)

A Search for Presolar Chromium-Oxide ( $\text{Cr}_2\text{O}_3$ ) Grains in Orgueil.

39<sup>th</sup> Lunar and Planetary Science Conference (Houston, USA, poster)