

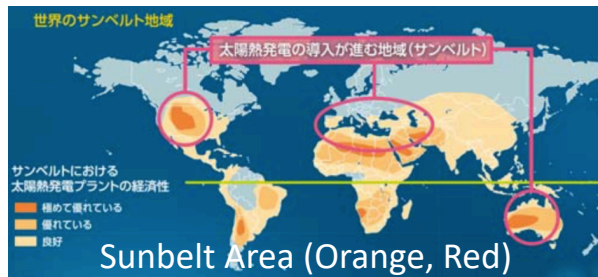
Solar Thermochemical Hydrogen Research and Development

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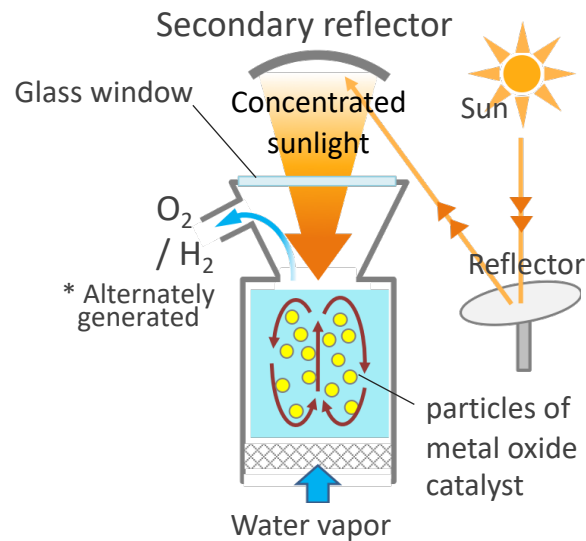


Clean Hydrogen Production Using Solar Thermal Energy

We develop the technologies to produce clean hydrogen energy via thermochemical water splitting utilizing high-temperature solar heat obtained by concentrating sunlight with reflective mirrors. Its practical application is expected in “sunbelt” countries and regions in the world.



System of Solar Thermochemical Hydrogen Production



We have been developing element technologies for practical use, using a 100kW class solar concentrating system (Miyazaki, Japan) constructed under collaboration with The University of Miyazaki.

Participating in demonstration research project in Australia aiming at practical application

Since October 2018, we have been participating in the Australian Renewable Energy Agency (ARENA) demonstration research project and providing our innovative technologies. Our goal is to establish technologies through this project and to create a path to a sustainable hydrogen society.



Australian Government
Australian Renewable
Energy Agency

ARENA

Solar Thermochemical Hydrogen Research and Development

Lead Organisation: CSIRO (the Commonwealth Scientific and Industrial Research Organisation)

Collaboration partner: Niigata University, The Institute of Applied Energy, Japan

Research period: Oct. 2018 – End of 2021

Total research cost: \$4.04m (Funded by ARENA: \$2.00m)



CSIRO's 500kW class solar concentrating system to be used in the project. (Newcastle / Australia)