



“Renewable Energy and Power” Research Unit (2)

3) Utilization of Low Temperature Heat

- Thermo-electric generation system (TEG)
- Development of desiccant air-conditioning system for green house using Silica gel
- Utilization of heat/electricity generated by gas co-generation

TEG system



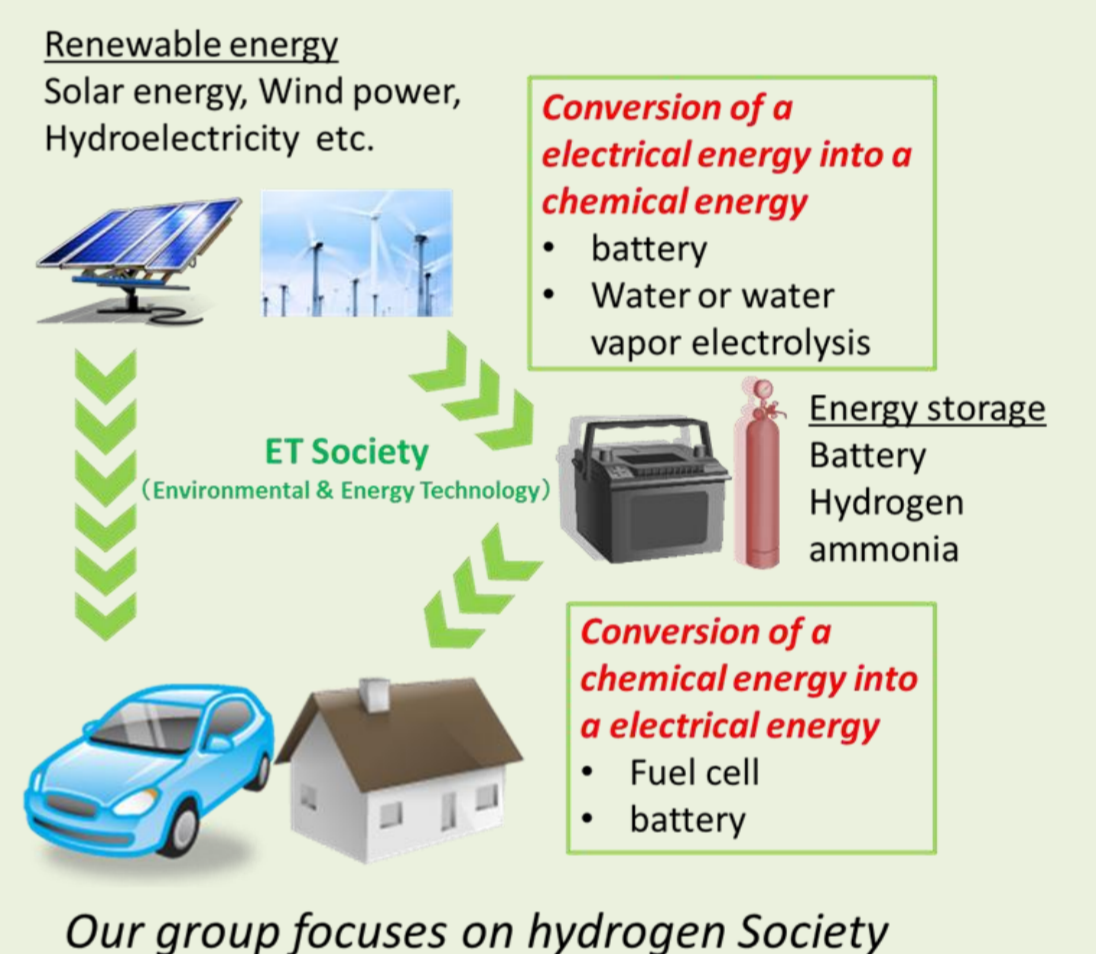
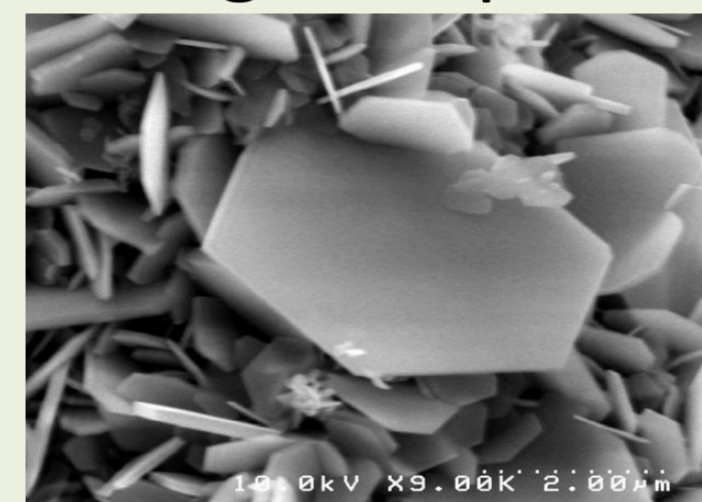
Green house air-conditioning



4) Fuel Cell and Rechargeable Battery

- Development of several kinds of fuel cells such as PEFC, AFC, PCFE
- Material design for cathode of secondary battery
- Conversion of electricity (renewable energy) to chemical energies, and of chemical energy to electricity, for “Hydrogen Society”

Nano-structure of Ni Hydroxide Hexagonal plate



5) Agriculture-Engineering Collaboration Project

- Smart agriculture using renewable energies and LED such as the plant factory, etc.
- Development of small hydro generation system with 10 kW or smaller
- Gas co-generation using dried biomass made of cow dung

Plant Factory (PV & LED)



Cow-dung dried biomass



Hydro generation of 1 kW



Contact address in Japan (Miyazaki) : University of Miyazaki
Address : 1-1, Gakuen – Kibanadai – Nishi Miyazaki 889-2192
Web site : <http://www.miyazaki-u.ac.jp/english/> Email: kokusai@of.miyazaki-u.ac.jp

