



# Realization of a low carbon society through game changing technologies

**Efficient on-demand ammonia synthesis at low temperature in an electric field**

**Project Leader :** Yasushi SEKINE,  
Professor, Waseda University

**R&D Team :** Nippon Shokubai Co., Ltd. JGC CORPORATION



## Summary :

- Existing Haber-Bosch process requires high temperatures and high pressures, so it is not suitable for on-demand processes.
- Low temperature on-demand production can be achieved by catalytic reactions in an electric field.
- 1.17 Mt-CO<sub>2</sub> emission can be suppressed in Japan (2050 case).

