

# Synthesis of new materials using high pressure-temperature conditions and non-equilibrium/meta-stable processes

**Graduate School of Engineering**  
**Department of Crystalline Materials Science**  
**High Pressure Materials Science Group**

**CONTACT**

Tel: +81-52-789-3370 Email: hasegawa@numse.nagoya-u.ac.jp

**WEB SITE**

<http://www.numse.nagoya-u.ac.jp/hasegawa/>



Prof. Masashi Hasegawa

New materials and crystals have been synthesized using various kinds of novel original processes, such as ultra-high pressure and temperature, supercritical fluid, non-equilibrium/meta-stable, organic-inorganic conversion processes, for the green-energy society by research collaborations among engineers, material scientists, chemists and physicists.

< Processes >

High pressure-temperature process  
Supercritical fluid process  
Infrared laser process  
Crystal growth process  
Non-equilibrium/meta-stable process  
Organic-inorganic process

< Target Materials >

Photo-catalyst materials  
Thermo-electrical materials  
Power-device materials  
High thermal-conductivity materials  
Storage battery and Solar cell materials  
Hard/Soft magnetic materials  
Superconducting materials  
Amorphous/Nano-grains materials  
Porous materials  
Damping materials  
Hydrogen-energy related materials

