



# Kamata Lab

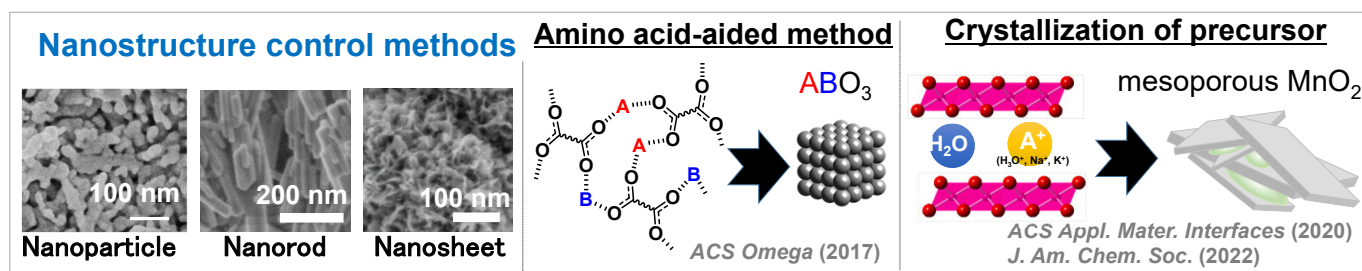
## Development of new solid catalyst science based on synthetic chemistry

### Laboratory for Materials and Structures

<https://www.msl.titech.ac.jp/~kamata/en/index.html>

- Development of new nanostructure control methods
- Creation of new oxidation catalysts using molecular oxygen
- High functionalization of multicomponent solid catalysts

Based on our original inorganic synthesis methods, Kamata group are challenging the science of new solid catalysts based on crystalline metal oxides. In particular, we aim to develop catalyst technology to produce useful chemicals (monomers, fuels, etc.) from various natural carbon resources such as natural gas and biomass with low energy and CO<sub>2</sub> emissions, in sharp contrast to the current chemical processes which are mainly dependent on fossil resources such as petroleum. Our ongoing projects are as follows.



### Diverse catalytic application

