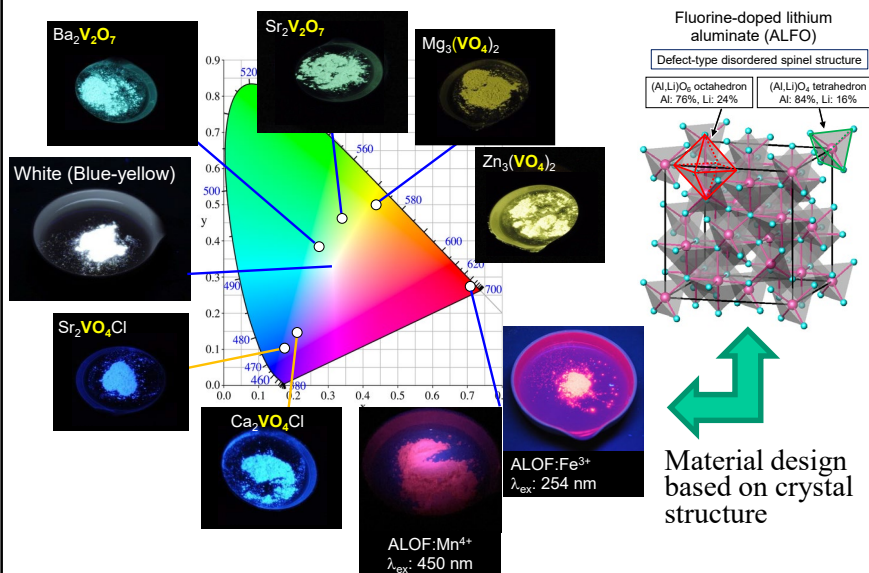


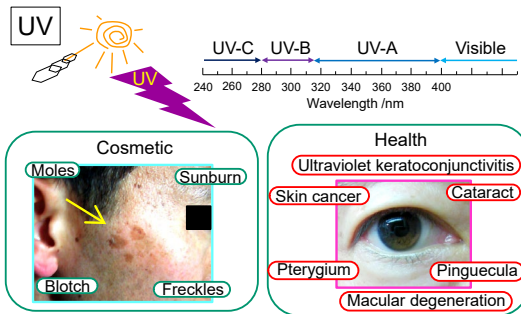
# Intelligent Materials for a Sustainably Developing Society

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## ○ Full-color-phosphors based on 3d transition metals



## ○ Fast-response UV sensors based on wide-band-gap oxide semiconductors



## Content :

The global economy has developed recently, while social problems related to resource depletion, environmental pollution, etc. have also grown on a worldwide scale. Intelligent materials based on abundant, ubiquitous elements should become a key to realize a sustainably developing society.

We are interested in “intelligent materials” composed of non-rare elements on the fourth row and above in the periodic table. Inorganic oxide materials in, especially, an opt-electronic field are mainly targeted. Examples of the research themes are “full-color-phosphors based on 3d transition metals”, “fast-response UV sensors based on wide-band-gap oxide semiconductors”, and “super ionic conductors for an all-solid-state battery”.

## Appealing point :

Thorough characterization of the materials in the view point of crystal structures is an appealing point of our approach to reveal the mechanism of the function of a material.

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