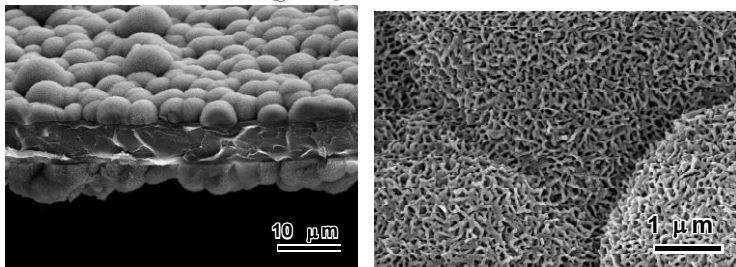
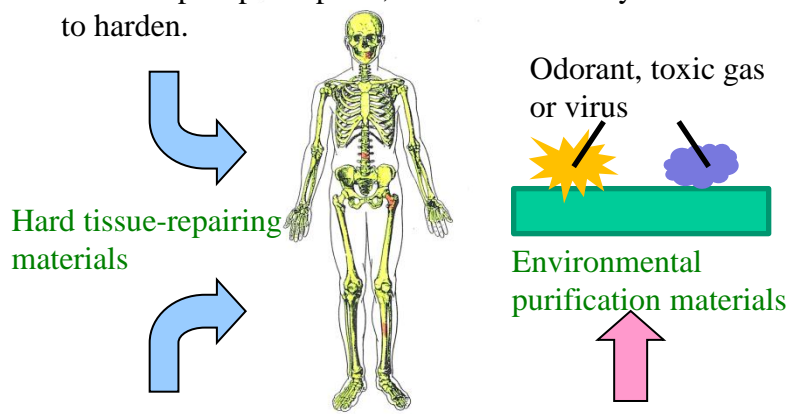


Development of Highly Functional Inorganic Materials under Mild Conditions

Associate Professor Takahiro Kawai



Calcium phosphate paste, that reacts in body environment to harden.



Hydroxyapatite-polymer hybrid fabricated in a solution mimicking body environment.

Content:

We are involved in development of novel functional materials based on inorganic solid, such as...

- 1) **Hard tissue-repairing materials:** Chemical modification of a substrate or coating of calcium phosphates on a substrate to promote new bone formation in orthopedic or dental defects in our bodies.
- 2) **Environmental purification materials:** Specific adsorption and removal of odorants, toxic gases and virus, etc.
- 3) **Nanostructural materials:** Excellent properties for energy conversion or catalytic reaction. (Ex. inorganic oxide nanotubes)

We have focused our interests on developing these materials via ways under mild conditions, which can reduce environmental load .

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