

Development of Bioresorbable Glass Materials for Biomedical Applications

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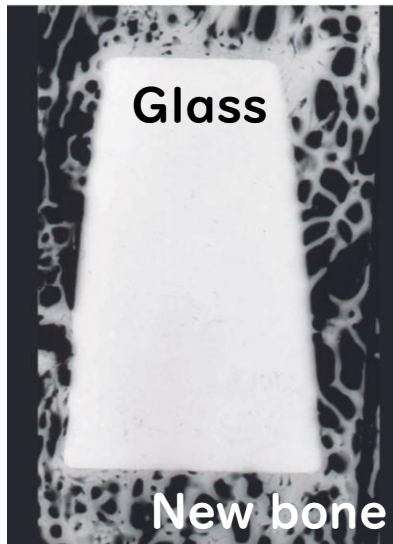
Glass: Amorphous inorganic solids without a crystal structure



Window glass



Glass cup



Glass

New bone

<https://glass-poster.iyog2022.jp>

Bioactive glass

Directly bonds to bone: Apply to bone defects
Biodegradable: Sustained release of constituent elements and added elements enables functional expression

Synthesis of glass



In this theme, we will investigate the effect of elemental additions on the bioresorbability of bioactive glass. Element-added SiO₂-CaO-based bioactive glasses are synthesized by the melt-quenching method, and their bioresorbability is evaluated using immersion testing in the simulated body fluid.

The start date will be decided in consultation with the students.