Effects of Composition on Antiviral Properties of Hydroxyapatite /<u>TiO₂ Coating Fabricated by Suspension Plasma Spray</u>

Background and purpose

Optimizing Light Irradiation Condition on Antiviral Properties of Hydroxyapatite/ TiO₂ Coating

Antivirus test



- Time duration1 hour
- Light intensity 50 mW/cm²
- Wavelength 525 nm



- 0.7 ml LE392 bacteria distributed over the LB Agar medium.
- Phage suspension was dropped on the surface of bacteria.

supported by JSPS KAKENHI, Union tool foundation

Mirazul Mahmud Abir, Yuichi Otsuka, Yukio Miyashita Nagaoka University of Technology Nagaoka, Japan

Antivirus performance of plasma sprayed HAp/TiO2 coat



Longer then 2hour irradiation can exhibit antivirus performance

=> Floating virus can not be influenced by fluorescence and adhesion behavior should be considered

