人と光の新しい関係を創る
伊都研究所

Ito Research Institute Co., Ltd.

Research and development of next-generation virus detection system

We aim to build an ultra-sensitive virus detection system with our proprietary ABC light semiconductor and silver tabular particle technology.

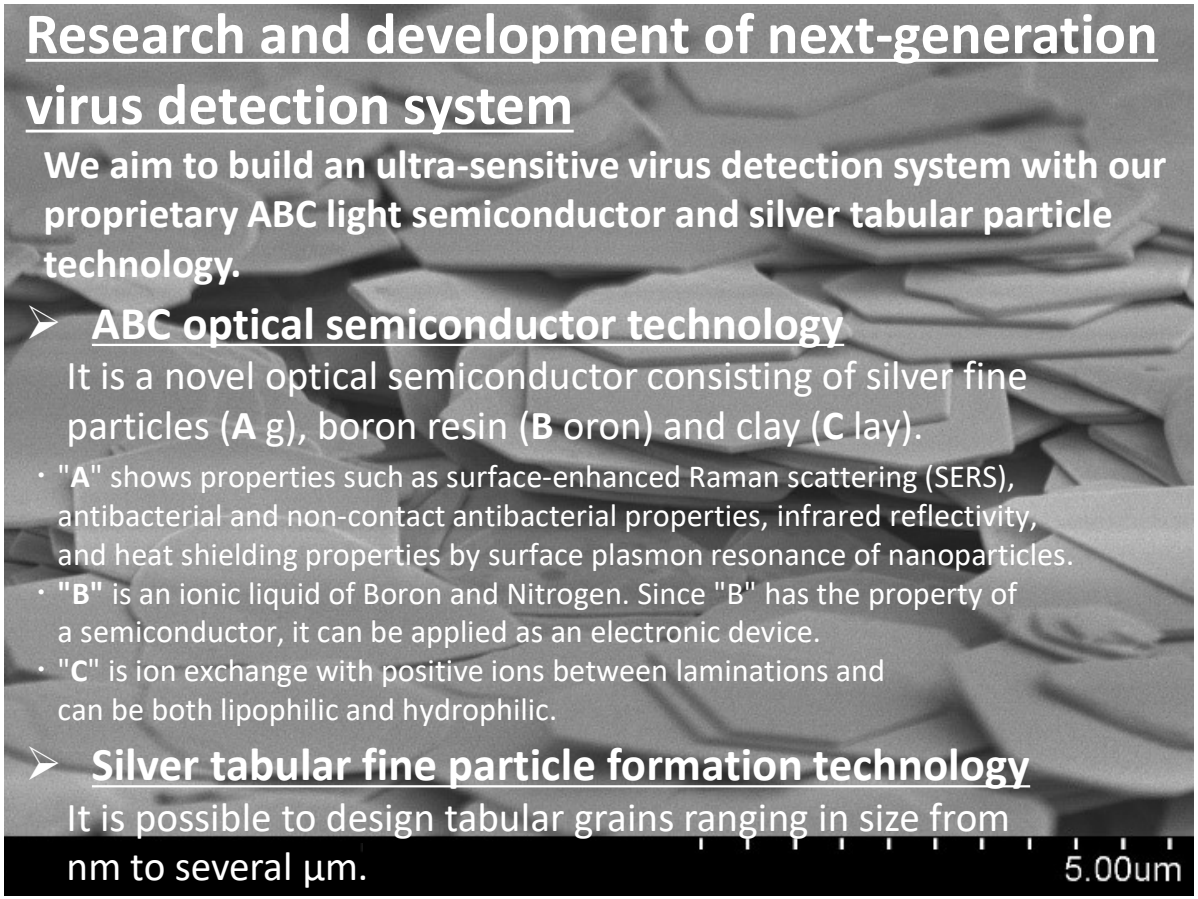
➢ ABC optical semiconductor technology

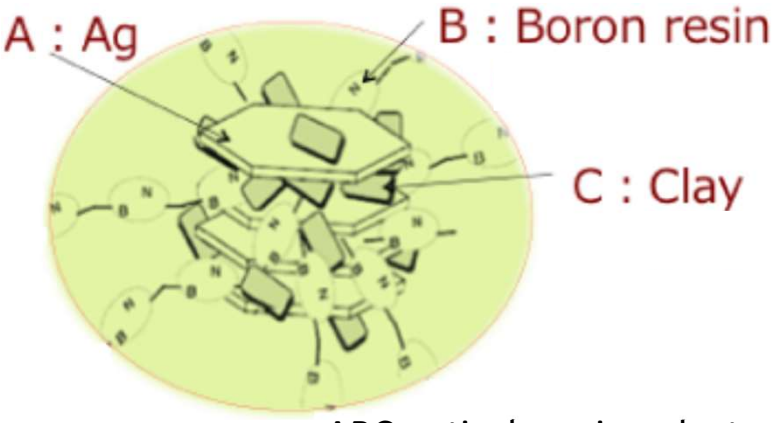
It is a novel optical semiconductor consisting of silver fine particles (**A** g), boron resin (**B** oron) and clay (**C** lay).

- "**A**" shows properties such as surface-enhanced Raman scattering (SERS), antibacterial and non-contact antibacterial properties, infrared reflectivity, and heat shielding properties by surface plasmon resonance of nanoparticles.
- "**B**" is an ionic liquid of Boron and Nitrogen. Since "B" has the property of a semiconductor, it can be applied as an electronic device.
- "**C**" is ion exchange with positive ions between laminations and can be both lipophilic and hydrophilic.

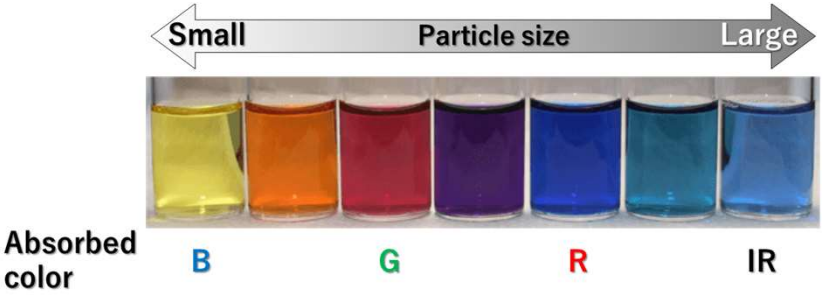
➢ Silver tabular fine particle formation technology

It is possible to design tabular grains ranging in size from nm to several μm.





ABC optical semiconductor



Multi-size silver nanoplate water dispersion

Food, Medicine and Bio-Products