



## NIPPON SHOKUBAI announces developing novel Zirconia Nanoparticles<sup>\*)</sup> supplied as dispersions in various organic solvents

NIPPON SHOKUBAI CO., LTD. [Tokyo Stock Exchange - TOKSE:4114.T] ("NIPPON SHOKUBAI") hereby announces that NIPPON SHOKUBAI has developed novel Zirconia Nanoparticles with good dispersibility in organic solvents by its own original technology. NIPPON SHOKUBAI has already started supplying prototype samples and is engaged in establishing a mass production process of the particles.

NIPPON SHOKUBAI has developed Zirconia Nanoparticles by using its proprietary catalyst technology and organic synthesis technology. Their features are ultra-fine particles controlled nanoscale and good dispersibility in various organic solvents and resins. Consequently, the resins containing Zirconia Nanoparticles as fillers achieve high transparency.

Adding Zirconia Nanoparticles to resins is expected to increase refractive index, Abbe number, dielectric constant and glass transition temperature (Tg). The resulting resins are applicable to optical materials and/or electrical materials like displays and lens. Especially, the resins with very high refractive index contribute to achieve high resolution of displays of smartphones and tablet PCs of which global markets are estimated to expand.

NIPPON SHOKUBAI is focusing dispersions of Zirconia Nanoparticles for the displays. NIPPON SHOKUBAI will supply customers with the dispersions satisfying each customer's needs by continuing to develop the dispersion of the particles in various organic solvents and resins.

\*) zirconia nanoparticles : Zirconium dioxide particles of which diameter controlled nanoscale (1:1,000,000,000).

Zirconia Nanoparticles are exhibited at upcoming MATERIAL JAPAN, to be held from Jan. 16(Wed)-18(Fri), 2013 at Tokyo Big Sight in Japan. The booth will be located at E16-42.

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