

- Elucidation for its superior high-temperature strength and resistance to neutron irradiation -

A research group led by Assistant Professor Akihiko Hirata and Professor Mingwei Chen has revealed the structure of oxide nanoclusters in Oxide.

Dispersed Strengthened (ODS) steels, using an aberration corrected scanning transmission electron microscope. This achievement is important for understanding properties of ODS steels, such as their superior high-temperature strength and resistance to neutron irradiation.

The research result will be published online in Nature Materials on October 23, 2011. The paper's title is "Atomic structure of nanoclusters in oxide dispersion strengthened steels".

[Contact]

Assistant Professor Akihiko Hirata

WPI Advanced Institute for Materials Research, Tohoku University

Address: 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan

TEL: +81-22-217-5959 Fax: +81-22-217-5955

E-mail: hirata*wpi-aimr.tohoku.ac.jp (Replace * with @)

Professor Mingwei Chen

WPI Advanced Institute for Materials Research, Tohoku University

Address: 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan

TEL: +81-22-217-5992 Fax: +81-22-217-5955

E-mail: mwchen*wpi-aimr.tohoku.ac.jp (Replace * with @)