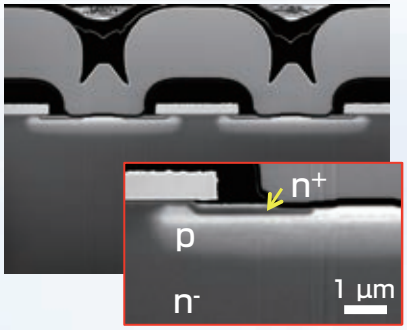
HITACHI
Inspire the Next

HITACHI Ultra High-Resolution nano-analytical FE-SEM

Regulus

– High Contrast, High Resolution Images –

Dopant contrast of SiC device



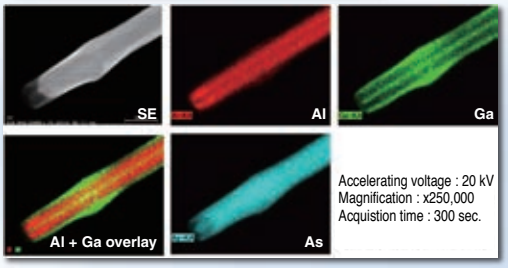
SiC power device
Dopant distribution is clearly visible by Low-energy imaging.

Regulus series FE-SEM

– nano analysis –

Science for a better tomorrow

High speed and High spatial resolution EDX

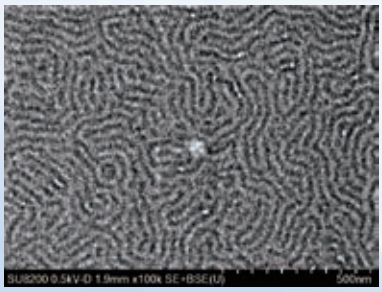


III-V semi conductor Nano-Wire
GaAs-AlAs-AlGaAs structure was revealed by EDX elemental Map data.

HV : 20 kV
Mag : 250 kX
Duration : 300 sec.

EDX : Bruker Flat Quad
Specimen courtesy from Lund University, Sweden

Imaging of "light element materials"

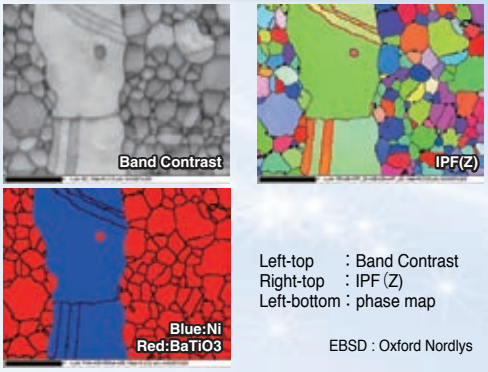


Phase separation of PS-b-PBD co-polymer
Lamella structure of PS and PBD (~20 nm) is visible by BSE image at low energy condition.

Feature

- High brightness CFE Gun supports all the imaging condition from low energy to 30 kV for STEM imaging
- Versatile detection system acquires various signals such as SE, BSE, TE.
- Various accessories available, EDX, EBSD, Cryo and so on.

Sub-100 nm high spatial resolution EBSD

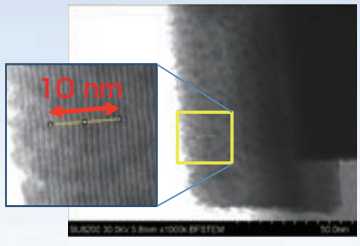


Left-top : Band Contrast
Right-top : IPF (Z)
Left-bottom : phase map

EBSD : Oxford Nordlys

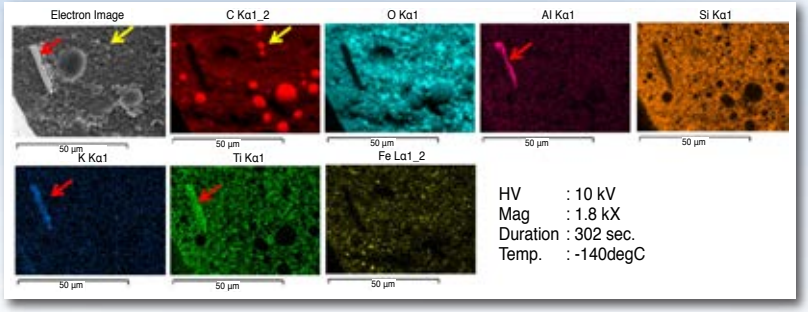
Multi layered capacitor
Perfect separation of Ni and BaTiO3 phase. Grains smaller than 100 nm were indexed.

Lattice resolution STEM imaging



Lattice imaging of Asbesto
By SEM/STEM (30 kV) image.

Cryo EDS



Cryo SEM/EDX of cream : cosmetic material
Creamy material SEM/EDX examination by using of Cryo transfer system

Cryo transfer : Quorum PP3010T
EDX : Oxford X-Max