

Regulus series FE-SEM

Hitachi High-Technologies Corporation released the new Regulus series of field-emission scanning electron microscopes (FE-SEM).

As a new brand of FE-SEMs, the Regulus series lineup comprises four models: the Regulus8100, Regulus8220, Regulus8230, and Regulus8240, all of which extend the functions of the previous models with the use of a common platform. The Regulus series offers enhanced functionality with improved resolution and ease of use.

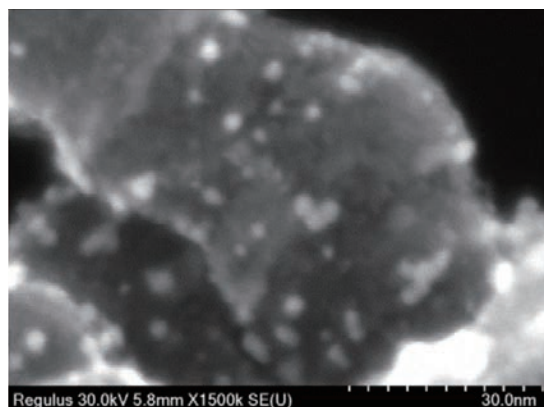
Key Features

1. Cold field emission (CFE) gun optimized for low-voltage, high-resolution imaging with low aberration
2. Resolution improved by 20% than previous models (Regulus8220/8230/8240: 0.9 nm/1 kV; Regulus8100: 1.1 nm/1 kV)
3. Maximum magnification doubled from 1,000,000X to 2,000,000X (Regulus8220 / 8230 /8240).
4. User-support functions to ensure high performance



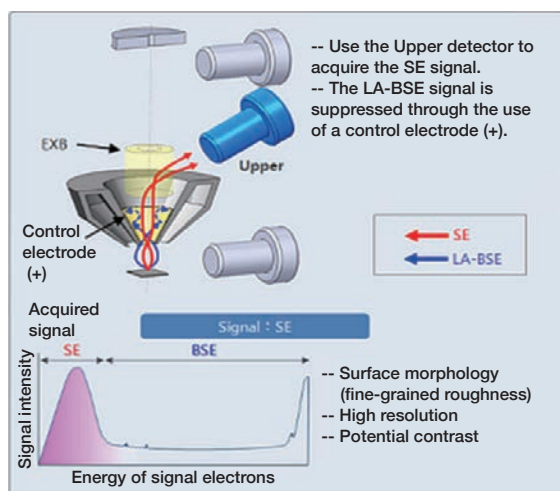
Regulus8240 overview

Extended maximum magnification (Regulus8220/8230/8240)



SE image of catalyst (Mag. = 1,500,000X)

User support function



Newly featured "user support function" shows signals and detection system status. Left figure shows operation principle of active detector and supposed signal acquired by the detector. This function supports practical observation by means of various detectors of Regulus FE-SEM.