Add the Time of Flight Secondary Ion Mass spectrometry (ToF-SIMS) Detector to your ZEISS Crossbeam 350 or Crossbeam 550. Benefit from added value for your materials research.

ZEISS ToF-SIMS augments sample processing, imaging and analytical performance of the next generation combined high-resolution field emission scanning electron microscope (FE-SEM)/focused ion beam (FIB) instrument by nm resolution and ppm sensitivity compositional analysis.

**Highlights**

**Maximized sample insights**
Benefit from excellent sensitivity and mass resolution, along with the ability to differentiate isotopes and molecular fragments.

**Enhanced resolution**
Detect atomic and molecular ions down to ppm level thanks to spatial resolution.

**Multiple analysis**
Detect practically all elements of the periodic table, e.g. light elements such as lithium.

**Post-mortem retrieval**
Profit from the possibility to do a post-mortem retrieval of any signal from the ROI.

**Upgrade your ZEISS microscope**
Upgrade your ZEISS microscope with the ToF-SIMS option and benefit from sensitivity 3D analytics at high throughput.

As technical requirements may apply on some systems, please contact us to learn more about the ToF-SIMS Detector and how your process will benefit from an upgrade: microscopy@zeiss.com
ZEISS ToF-SIMS Detector
Profit for your material research

SIMS working principle

The Gallium focused ion beam removes material from the top few nm of the sample surface. The different sputtered ion species (light and dark grey) are collected and transferred to the ToF-SIMS Detector.

Availability

- Crossbeam series

Retractable ToF-SIMS spectrometer for ZEISS Crossbeam 350 and ZEISS Crossbeam 550

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Detection limit</td>
<td>&lt; 4.2 ppm boron in silicon</td>
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<tr>
<td>Lateral resolution</td>
<td>&lt; 35 nm</td>
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<tr>
<td>Mass/charge range</td>
<td>1-500 Th</td>
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<tr>
<td>Mass resolution</td>
<td>m/Δm &gt; 500 FWTM</td>
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<tr>
<td>Depth resolution</td>
<td>&lt; 20nm AlAs/GaAs multilayer system</td>
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