Date: 06.10.2019

Authorized user: B.Abasahl Work area: FIB zone Workplace: Room 100.030g

## Safety Instruction **Zeiss Crossbeam 340**

WWU Münster Nanofabrication Facility (MNF) Center for Soft Nanoscience (SoN) Busso-Peus-Str. 10 48149 Münster

+6143 Mulister	
Range of Application	
Working with vacuum/high-vacuum with focused ion beam, operating under high voltage	
Hazard for People and the environment	
<ul> <li>Risk of burn by hot surfaces</li> <li>Hazard due to ionized radiation</li> <li>Hazard due to electron radiation</li> <li>Risk of shock due to high voltage electrical discharge</li> <li>Danger of implosion by improper handling or using unsuitable materials, parts can fly around</li> <li>Risk of flooding due to leakage in the cooling water system</li> <li>Risk of injury by moving components</li> </ul> Safety Measures and Rules of Behavior	
The instrument is to be used only by designated Persons	
<ul> <li>No improper handling of switches, buttons etc.</li> <li>Running of the instrument only under supervision</li> <li>Constantly observe nitrogen and pressured air pressure indicators</li> <li>Do not damage service connections</li> <li>People with pacemaker or metal implants must keep a sufficient distance to the</li> </ul>	
<ul> <li>machine</li> <li>Wear protective gear (Protection garment and gloves)</li> <li>Follow the instruction manual of the manufacturer</li> <li>Instruct people within the laboratory about potential hazards</li> <li>Pregnant women are generally not allowed to use or stay near the device.</li> <li>Danger to the embryo/ foetus from ionizing radiation/ electron radiation!</li> </ul>	
Action in Failure	
<ul> <li>Shut down machine and vacuum pump, only in case of fire push the emergency stop button</li> <li>Report defects and damage to supervisor</li> <li>Only experts should eliminate malfunctions</li> </ul> Action in Accident, First Aid	
<ul> <li>Protect yourself and remove injured people out of the danger area, react quickly, involve primary responsible person,</li> <li>In case of stronger injury call emergency services (112)</li> <li>If important, switch off the instrument by the emergency stop button at the machine</li> <li>Firefighting only with CO<sub>2</sub> fire extinguisher</li> <li>Report accident</li> </ul>	
Maintenance and Disposal	
<ul> <li>Instrument must be repaired only by authorized persons</li> <li>Dispose used material and hazardous scraps in an environmentally sound manner</li> </ul>	
Consequences in Nonobservance	
Damage to the instrument, malfunction, costly damage	