

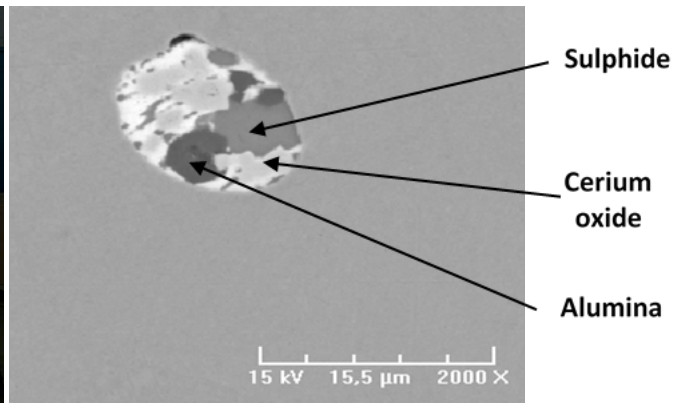
Topic 2.1: manufacturing processes and controlled properties materials

This research theme focuses on the interaction between the manufacturing processes (mainly foundry and forging) and technical specifications of the materials obtained.

- The historical thematic is the elaboration of controlled microstructure materials and the improvement of their properties such as surface roughness, inclusion cleanliness, mechanical characteristics ...



Modification of inclusions cleanliness by inoculation of casted steel



Complex inclusion obtained by inoculation

- The process control is a theme based on experimental part and numerical one. Combining numerical simulation of processes (NovaFlow&Solid, Forge 3D...) and physical trials allows improving materials properties and reducing their defects.