

Research on container-less solidification of alloys

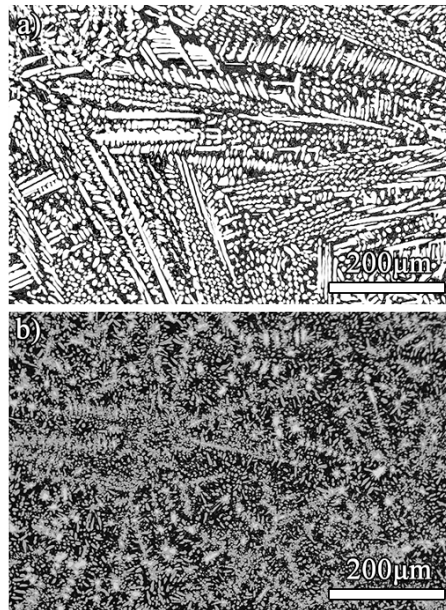
Metallic Materials – PD Dr. Lippmann

Topic:

A fundamental understanding of phase selection at high undercoolings using containerless processing and in-situ observation techniques

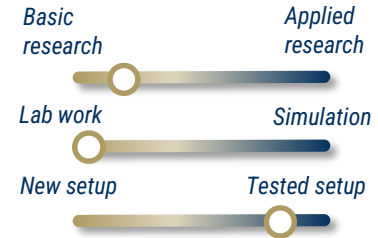
Thesis subject:

- Investigation of primary phase formation in Al-Ni alloys at different undercoolings using electromagnetic levitation (and electron microscopy)
- Investigation of the glass formation behavior of Pt-based alloys
- Modelling of rapid phase transformations (modelling topic also possible)



Examples of Al-Ni alloys after processing in electromagnetic levitation. Different primary phases occur due to different overheating temperatures and different undercoolings.

Scientific Profile



Language

German, English

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