

PhD notebook

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1 Administration

- Create tax card, need contract information as salary
 - ⇒ link is here and go to Forskudsopgørelse
- Webinar "moving to Denmark and PhD at DTU"
 - ⇒ take the session 2026/02/20 from 1pm to 2 pm
- Mandatory introduction culture day
 - ⇒ Chose the option 10 March from 10:45 am to 2 pm
- Introduction to responsible conduct of research and research data management for new employees
 - ⇒ chose 6 April from 9am to 1 pm

2 Teaching

2.1 Course Preparation

3 Bibliography

3.1 Powder production processes

3.2 Gas atomization

3.2.1 Water atomization

3.2.2 Centrifugal atomization

3.2.3 Plasma atomization

3.2.4 Mechanical attrition and alloying

3.2.5 Melt spinning

3.2.6 Rotating electrode process (REP)

3.2.7 Chemical processes

3.3 Factors influencing metallic powder size and quality during gas atomization

3.3.1 Material properties

Feedstock property and geometry (powder, scrap, wire, metal alloy elements or pre-alloyed) impact the powder quality [?]

3.3.1.1 Pure metal

3.3.1.2 Alloy

3.3.2 Gas environment

3.3.3 Nozzle geometry

3.3.4 Thermal condition

3.4 Powder characterization

3.4.1 Ductility and hardness

3.4.2 Impurities and reactivity

3.4.3 Tap density, apparent density, compressibility, green strength, flow properties and compressibility

TO-DO LIST

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