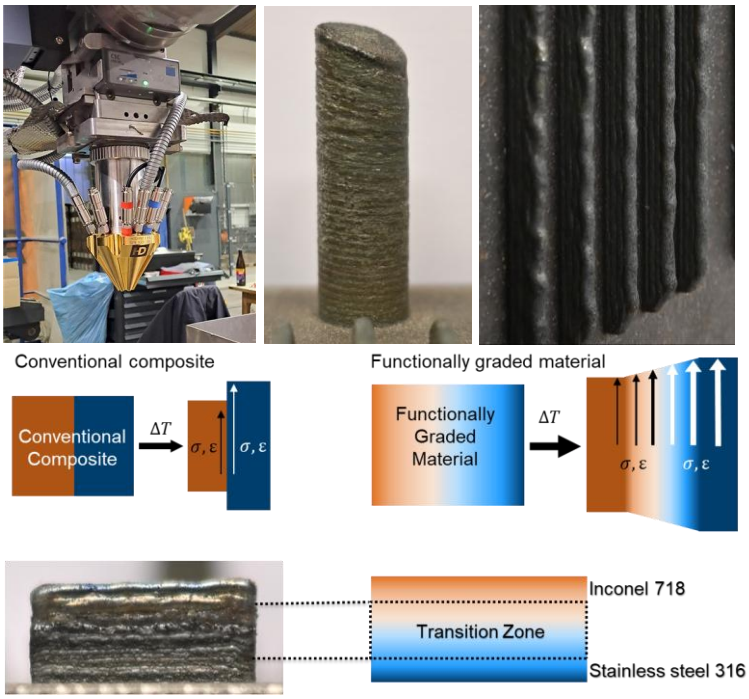
Controlling Defects in L-DED of 316L and IN718: A Review of Key Processing Parameters

Content

Laser Directed Energy Deposition (L-DED) of key alloys like 316L and IN718 is often plagued by defects such as cracking and porosity. These flaws compromise part integrity and hinder wider industrial adoption. This review systematically explores the link between processing parameters and defect formation to improve manufacturing reliability.



Tasks

- Identify common defects in the L-DED of 316L and IN718.
- Correlate defect formation with key process parameters (laser power, scan speed, etc.).
- Summarize effective strategies for defect mitigation and process control.

Prerequisites

- Interested in additive manufacturing and metallurgical knowledge.

Contact

Lu Yan, M.Sc.
Chair of Metal Structures
Theresienstr. 90

Mail: lu.yan@tum.de
Tel: 089/289-22528
Room: 0101.Z1.036