

Research Campus Digital Photonic Production DPP

Enabling Industries Through Computational Alloy Screening for High Performance Alloys



Motivation and Relevance

- There is an increasing demand for PBF-LB/M processible high-performance nickel-based superalloys.
- Most of these alloys produce cracks and other defects during processing.

Approach

- Due to the possibility of **Computational Alloy Screening**, an extremely large number of alloying components can be investigated simulatively with regard to **lower defects** in the PBF-LB/M.

Results

- Gaining an understanding of the cracking mechanisms in nickel-based superalloys and possible elemental initiators
- Developing a methodology to efficiently predict the processibility of nickel-based superalloys

Research Area

- Alloy Development

Partners

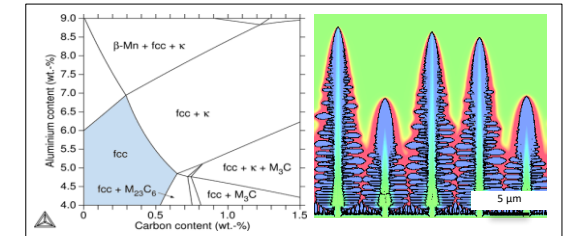


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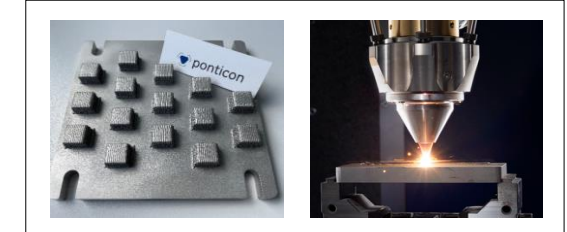


Picture


Computational Alloy Screening



High Throughput Testing



Contact



Klaus Büßenschütt
klaus.buessenschuett
@dap.rwth-aachen.de
dap-aachen.de/

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