

Our technology

Alchemite™ is a **unique machine learning solution that accelerates innovation and production of industrial formulations**. This cutting-edge technology is capable of extracting valuable knowledge hidden in your data and creates predictive models that reduce costs and accelerates the design of materials.

Critical features

Alchemite™ uses machine learning to optimize development & processes, and is **capable of handling incomplete data** sets when both training and predicting.

Cut costs by minimizing expensive processes

Design bespoke materials

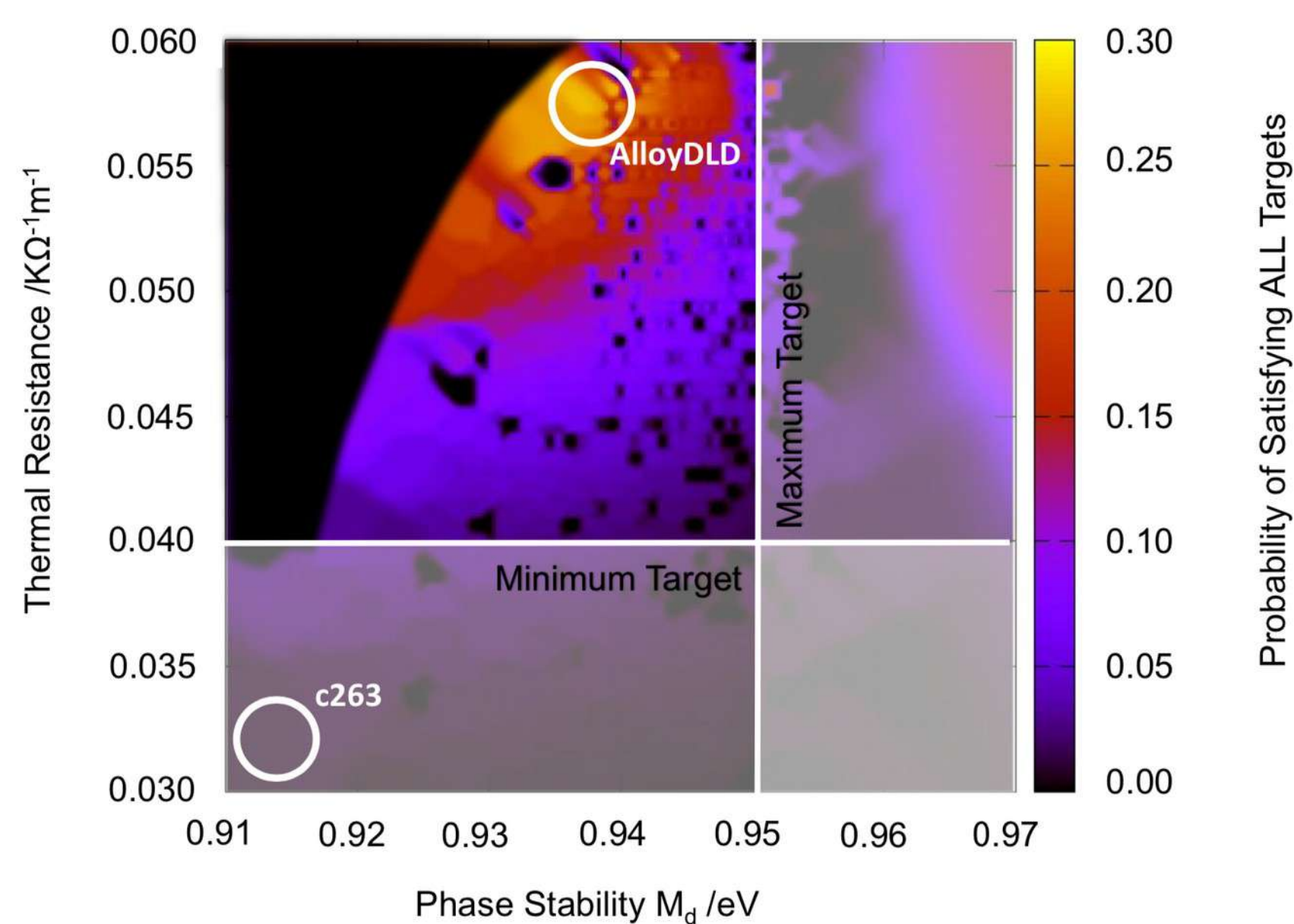
Understand **processing** variables

Accelerate materials discovery

Standardize of workflows

Reduce **environmental impact**

Technology validation



Probability of an alloy fulfilling the design criteria as the targets as the thermal resistance and phase stability are varied. The color of shading shows the likelihood of exceeding all targets. The white circles show the proposed AlloyDLD and existing alloy C263
Conduit et al. *Materials & Design*, 2019.

Experimentally verified new materials in aerospace, automotive, superalloys, batteries, concrete, and steels

Exploration and optimization of oil and gas sites

Design chemicals and concrete

Predictive maintenance

Discover new drugs

Papers <https://www.intellegens.co.uk/paper.html>



Potential: improve design

Lighter, cheaper, recyclable materials

Reduce material wear and corrosion

Minimize footprint and waste

Potential: improve processes

Materials that can reduce heat waste

Reduce energy consumption and decarbonise

Cut water consumption