



In Situ Alloying

[View U.S. Patent No. 11,999,011 in PDF format.](#)

WARF: P190265US01

Inventors: Dan Thoma, Adrien Couet, Michael Moorehead

The Invention

Aspects of the disclosure are directed to methods and/or apparatuses involving the formation of samples or other structures using a dynamically modified mixture of materials. As may be implemented in accordance with one or more embodiments herein, a plurality of metal alloy samples are formed on a surface, in which each sample has a different metal alloy composition relative to the others. Elemental metal powders may be provided from hoppers at respective delivery rates and mixed, such that the mixture for each sample is set via the respective delivery rates and is different than the mixture for the other samples. Multiple layers of each mixture is deposited by dispensing and melting the mixture to form the respective samples, and one or more layer of each of the samples is remelted.

Additional Information

For More Information About the Inventors

- [Dan Thoma](#)
- [Adrien Couet](#)

Tech Fields

- [Engineering : Additive manufacturing](#)

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867