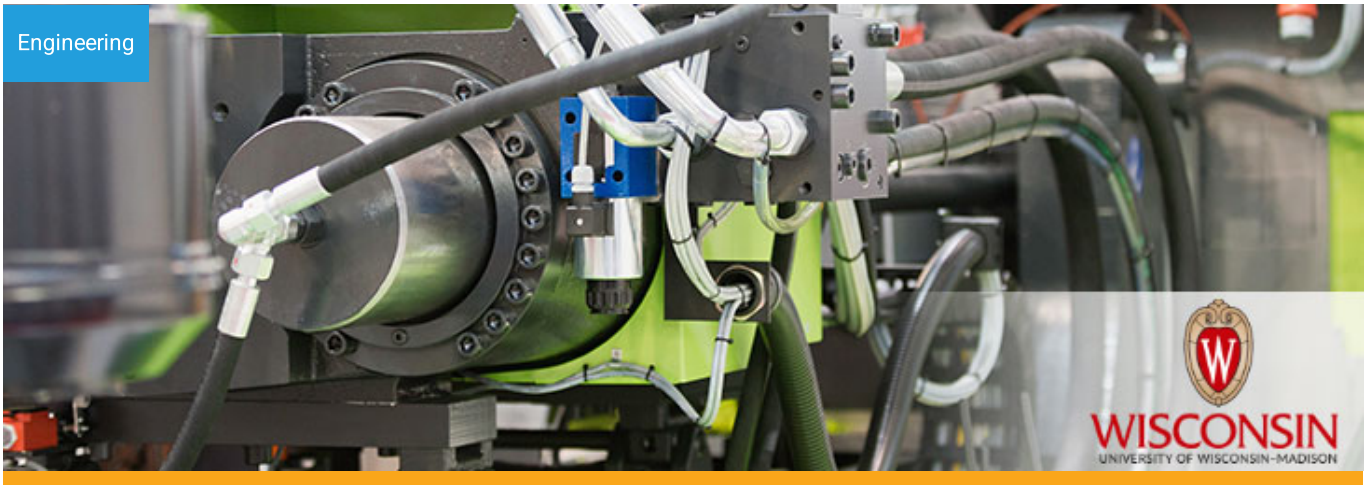
Engineering



DEVICE AND METHOD FOR EVALUATING THE SUSCEPTIBILITY OF HOT CRACKING IN ADDITIVE MANUFACTURING

View U.S. Patent No. 12,442,739 in PDF format.

WARF: P220351US01

Inventors: Sindo Kou

The Invention

UW-Madison researchers have developed a system and method for evaluating susceptibility of hot cracking in metal additive manufacturing. A tensile test-like substrate is pulled by a tensile test machine with a servo motor during AM to induce tension and hence hot cracking, including solidification cracking and liquation cracking ("liquation" means "liquated formation" as in welding). The motor is computer programmed to pull the tensile-test-like substrate during AM at a specified accelerating speed. The speed at which the first crack appears is the critical deformation speed.

Additional Information

For More Information About the Inventors

- Sindo Kou

Tech Fields

- Engineering : Additive manufacturing

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