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Standard method for microCT-based additive manufacturing quality control 4: metal powder analysis

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We use this protocol and it's working

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Abstract

X-ray micro computed tomography (microCT) can be applied to analyse powder feedstock used in additive manufacturing. In this paper, we demonstrate a dedicated workflow for this analysis method, specifically for Ti6Al4V powder typically used in commercial powder bed fusion (PBF) additive manufacturing (AM) systems. The methodology presented includes sample size requirements, scan conditions and settings, reconstruction and image analysis procedures. We envisage this method will support standardization in powder analysis in the additive manufacturing community. This is aimed at ultimately improving the quality of additively manufactured parts, through the identification of impurities and defects in powders.

Attachments

PDF
Method for microCT a...
1.7MB

FILE
04 Powder foam struc...
25.4MB

FILE
04 Powder Internal p...
59.6MB