OAK RIDGE NATIONAL LABORATORY

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Reactive Polymer Fused Deposition Manufacturing

Disclosure Number

201303140

Technology Summary

Conventional fused deposition manufacturing methods rely on thermoplastic deposition materials. The present invention involves additive manufacturing that uses reactive polymers as deposition materials. Reaction takes place following deposition. This makes fused deposition manufacturing more feasible for deposition of fiber reinforced materials due to enhanced chemical adhesion between the polymer and fiber reinforcement, which increases achievable mechanical properties of the resulting article.

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