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(57) Abstract :
Recent advancements in additive manufacturing (AM), commonly known as three-dimensional (3D)-printing, involves layer by layer addition of material to form the desired shape. The material properties affects the shape/property/functionally after printing as a function of time. In recent advances 4D printing as an extended technique of 3D printing or additive manufacturing with added time constraint. 4D printing permits the base material to transform into different shapes with time with the response of external stimuli and multi material printing is still limited in this process. The logical step is have a extruder with in filament changer that can selectively switch the behavior and operations of food products such as shape-shifting, multicolor, material properties and self-assembly in FDM systems

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