3D food printing of as the new way of preparing food: A review

ABSTRACT

The 3D printing technology has been applied to directly to construct physical model from 3D modelling without any aid of mold. Several industries such as automobile, aerospace including and recently food industry has utilize this technology to manufacture a complicated and intricate part required in the industry. It is foreseeable that 3D food printing (3DP) are possible to produce complex food model with unique internal pattern. A 3D food printing technique is composed of an extrusion-based printing, selective laser sintering and inkjet (liquid binding) printing. The food materials such as sugar, gelatin-based chocolate, and are used to create designed shape based on layer-by-layer method. This paper presents a review of 3D food printing techniques. This review is to categorize, printability, productivity, properties of printable material and mechanism of 3D food printing techniques, as well as to propose the future direction of this novel technology.