Claims

1. A process for preparing a crispy coated extruded plant-based food product, the process comprising the steps of:
   a) feeding an extruder barrel with a composition comprising 40-70wt% water and 15-35wt% plant protein;
   b) extruding the composition from step a) above the denaturation temperature of the plant protein;
   c) pushing the composition from step b) after the last extruder barrel through a constriction;
   d) cooling the composition from step c) through a cooling die;
   e) injecting an aqueous solution into the extruded composition from step d) with a needle injector;
   f) coating of the injected extruded composition of step e);
   wherein the process further comprises step:
   g) cooking, frying or baking the coated extruded composition of step f) to obtain the crispy coated extruded plant-based food product, and
   wherein the constriction reduces a cross-sectional area D_{constr} compared to a cross-sectional area before the constriction D_{before} between 30 to 90% and wherein a cross-sectional area after the constriction D_{after} is increased again.

2. The process for preparing a crispy coated extruded plant-based food product according to claim 1, wherein the extruded plant-based food product does not comprise protein from an animal source.

3. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to

2, wherein the plant protein is selected from soy protein, pea protein, canola protein, hemp protein, oat protein, fava protein or wheat gluten, or a combination thereof.

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4. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 3, wherein the plant protein is selected from a combination of at least two different plant proteins, wherein said plant proteins comprise wheat gluten and at least one other plant protein selected from pea protein, soy protein, faba bean protein, and canola protein and wherein wheat gluten comprises between 20 to 70% of total plant protein in the plant protein mixture.

5. The process for preparing a crispy coated extruded plant-based food product according to one of the claims 1 to 4, wherein the extruder barrels are heated to a temperature between 80-300°C, preferably between 80-150°C.

6. The process for preparing a crispy coated extruded plant-based food product according to one of the claims 1 to 5, wherein the constriction reduces the cross-sectional area D_{constr} compared to the cross-sectional area before the constriction D_{before} between 50 to 85%.

7. The process for preparing an extruded plant-based food product according to one of the claims 1 to 6, wherein the constriction is located after the last extrusion barrel at a composition viscosity between 1000-4000Pas^{-1}.

8. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 7, wherein the extruded mixture has an exit temperature at the end of the cooling die between 50-110°C.

9. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 8 further comprises a cutting of the extruded composition after step c) or step d).

10. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 9, wherein 5-35wt% of the aqueous solution is injected into the extruded composition.

11. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 10, wherein the aqueous solution has a temperature between -5 to 38°C.

12. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 11, wherein the aqueous solution comprises water or a water-based solution.

13. The process for preparing a crispy coated extruded plant-based food product according to any one of the claims 1 to 12, wherein the coating is selected from crumb coating, flour coating, tempura coating, cornflakes coating or a combination thereof.

14. The process for preparing a crispy coated extruded plant-based food product according to claim 13, wherein the water-based solution comprises at least one of the ingredients selected from flavouring, hydrocolloid, starch, fiber, protein, vitamin, mineral, colorant, lipid or a combination thereof.

15. The process for preparing a crispy coated extruded plant-based food product according to claim 11 or 14, wherein the aqueous solution comprises at least one further ingredient selected from 0.1-40wt% of flavouring, 0.01-5wt% of hydrocolloid, 0.1-7wt% of starch, 0.01-5wt% of protein, 0.01-5wt% of fiber, 0.01-30wt% of lipid, 0.0001-5wt% of vitamin, 0.0001-5wt% of mineral, 0.01-10wt% of colorant or a combination thereof.