

ABSTRACT**Nozzle for extruding a material rich in proteins and water, and system for
continuous preparation of an extruded food product**

The nozzle or die (30) delimits, successively according to its axis, i) a channel (40) which extends in a manner, centered on the axis from an upstream end (40A), opening onto the upstream side (30A) of the die, to a downstream end (40B), ii) two branches (50.1, 50.2) which extend in a straight line on either side of the axis, diverging from one another from the upstream ends (50.1A, 50.2A), axially abutting the downstream end of the channel, to the downstream ends (50.1B, 50.2B), and iii) two ducts (60.1, 60.2) which extend on either side of and parallel to the axis from the upstream ends (60.1A, 60.2A), abutting the downstream ends of the branches, to the downstream ends opening out on the downstream side of the die, each of the ducts having a section, in a plane perpendicular to the axis, which is constant between the upstream and downstream ends of the duct, in such a manner that the material flows into the channel and is then distributed into the branches before reaching the ducts wherein, under the effect of the material being pushed through the die from the upstream side of the die, the material progresses until it leaves in two product streams. The die is equipped with temperature control means to control the wall temperature of the ducts, the branches and the channel.

Figure for the abstract: Figure 4