Claims

1. Process for the continuous virus inactivation of a product stream, which comprises the following steps:
   a) provision of the product stream to be inactivated,
   b) introduction of the product stream into the inlet (4) of a tube or hose (1) having an inlet (4) and an outlet (5), where the tube or the hose (1) is curved and/or helically coiled with a number n of windings around a coil axis h and has one or more changes in direction and/or bends (2) in the coil axis having an angle α of from 45° to 180° to alter the direction of action of the normals of the centrifugal force thereby forming an apparatus and where the apparatus is characterized by a Dean number ≥ 2 and a torsion parameter > 100,
   c) flow of the product stream through the tube or the hose (1) under virus-inactivating conditions and
   d) exit from the tube or the hose (1) through the outlet (5).

2. Process according to Claim 1, characterized in that the apparatus in step b) is characterized by a Dean number ≥ 3, and a torsion parameter ≥ 300, preferably ≥ 500.

3. Process according to Claim 1 or 2, wherein the pH of the product stream in step a) is set to a value of ≤ 4 if the pH of the product stream to be inactivated does not already have the required value.

4. Process according to any of Claims 1 to 3, characterized in that the product stream to be inactivated is a solution of macromolecules, preferably a protein or peptide solution, particularly preferably an antibody solution.