emulsion of air in the coagulated and flocculated sludge,
and in that said second emulsion is at least partially degassed (20, 46, 67) by venting (20) of the enclosure before said filtration (25, 25') or settling.

2. Process according to Claim 1, characterized in that the first zone has a small volume less than 0.05 m^3.

3. Process according to any one of the preceding claims, characterized in that the predetermined first length $\underline{L_1}$ is greater than 50 cm.

4. Process according to Claim 3, characterized in that the predetermined second length $\underline{L_2}$ is greater than 1 m.

5. Process according to any one of the preceding claims, characterized in that the average pressure P in the container (5, 33) is such that $1.5 \text{ bar} < P < 10 \text{ bar}$ and Q' is such that $10\ Q \leq Q' \leq 100\ Q$.

6. Process according to any one of the preceding claims, characterized in that the emulsion is degassed at the outlet of the container, inside a degassing chamber (95, 124) equipped with stirring means (96).

7. Process according to any one of the preceding claims, characterized in that the online container (8) is a column (6) with an average diameter $\underline{d}$ and a height $H \geq 10\ \underline{d}$, the sludge (2) being introduced in the bottom part (10) of the column in the

14. Process according to Claim 13, characterized in that the enclosure comprises at least one element (18, 61, 97) which generates a pressure drop downstream of the outlet of the container (6, 52), at the outlet of which the flocculant is injected.

15. Process according to Claim 14, characterized in that the enclosure comprises at least one second element which generates a pressure drop upstream of the first generator element, at the outlet of which at least one reagent and/or air are introduced.

16. Process according to any one of the preceding claims, characterized in that the element(s) which generate(s) a pressure drop is (are) Venturis (18, 38, 44, 64).

17. Process according to any one of the preceding claims, characterized in that a rapid and/or substantially instantaneous concentration of the sludges is carried out by flotation/settling of said second emulsion in a volume (101, 128, 166, 180) acting as a concentrator.

18. Process according to Claim 17, characterized in that the sludge is discharged by overflow from the concentrator.

19. Process according to any one of the preceding claims, characterized in that a treatment of the sludges is carried out downstream of the tubular enclosure by centrifugation, filtration and/or pressing.