

ABSTRACT

A solid-liquid separator (1) that separates solid particles (p) from a fluid in which the solid particles (p) are dispersed includes a flow channel part (2) where a linear flow channel (7) into which the fluid is introduced is formed; and an ultrasonic vibrator (3) as a secondary flow generation mechanism that generates a secondary flow in a cross-section direction in the fluid flowing on an upstream side of the flow channel (7). The flow channel (7) includes a rectangular cross section defined by a flow channel width (w) and a flow channel height (h) perpendicular to the flow channel width (w). An aspect ratio (A_R) of the cross section at least on a downstream side from the secondary flow generation mechanism in the flow channel (7) is in a range from 10 to 100, the aspect ratio (A_R) being expressed by a ratio of the flow channel width (w) to the flow channel height (h).

FIG. 1