

DISPERSING OR MILLING APPARATUS, AND DISPERSING OR MILLING
METHOD USING THE SAME

ABSTRACT OF THE DISCLOSURE

A material to be treated containing solid particles in a liquid is stirred together with milling media, and irradiated with ultrasonic waves during stirring to finely mill the solid particles to nanometer size and disperse the solid particles in the liquid. The ultrasonic waves create cavitation in the liquid and upon decay of the cavitation, shock waves are produced that cause the solid particles to vigorously collide with one another and with the milling media and these collisions, together with the shearing forces -created by collision of the milling media, can produce on a commercial scale nano particles having an average particle size of at most 100 nm.

Fig.1A