

Sonication of Microtiter Plates

The Hielscher Ultrasonics GmbH has developed a technical solution for homogenisation or disintegration of biological cells in microtiter plates with the following features:

A massive sonotrode, which has over the entire working surface the same amplitude, sonicates all the wells of the microtiter plate equally.

The amplitude and the intensity of sonication are steplessly adjustable from 20% up to 100%.

Independent from the load, the set amplitude is maintained constant, ensuring that results are reproducible.

Water between the sonotrode and the microtiter plate transmits the ultrasound waves and acts as a cooling medium. Furthermore it equals the manufacturing tolerance of the microtiter plates.

An automatic frequency optimisation system guarantees safe operation of the ultrasonic processor under extreme working conditions; for example, an extremely cold sonotrode.

The sonication time can be adjusted to either continuous or a pulse mode.

And to reduce noise, the transducer and the sonotrode are housed under a transparent abatement cover.

In addition, you can use PC-control to store and display parameters such as amplitude, time, gross power, net power, the input of the effective power and also the temperature.

This device is also ideal for manual operation as well as for the integration in machines as OEM unit.



Sonication of microtiter plates: generator, transducer with sonotrode and on the top the microtiter plate



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