

# Feel the Principle of Focused Ultrasound Therapy

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## (1) Melt acrylic sheet with ultrasound

Melt acrylic sheet spot-wisely with focused ultrasound.

## (2) Feel piezoelectric phenomena

Connect the electric wires of the transducer to an oscilloscope and strike the transducer. Measure its complex impedance.

## (3) Fabricate an ultrasonic driving circuit

Fabricate an ultrasonic driving circuit using MOSFETs.

## (4) Feel the ultrasonic power

Drive the transducer in water with a power amplifier and measure the ultrasonic radiation force to calibrate the ultrasonic power output.

## (5) Measure the ultrasonic pressure field

Measure the ultrasonic field with hydrophone.

## (6) Coagulate chicken tissue with ultrasound

Coagulate chicken tissue inside its block.

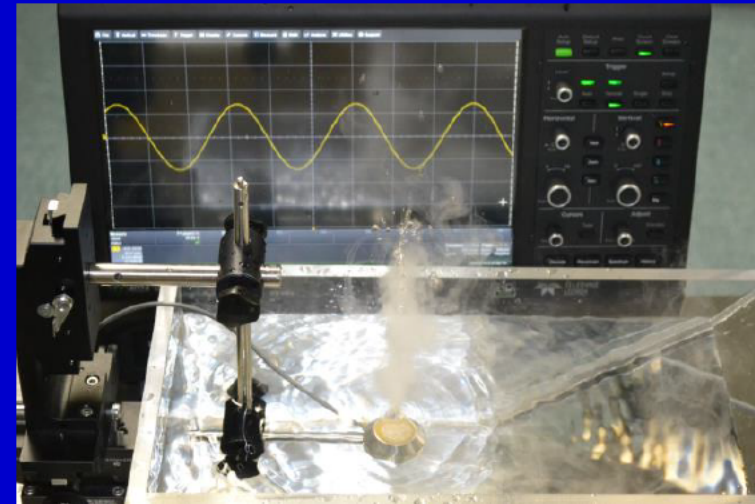


Fig. 1 Fountain by focused ultrasound.

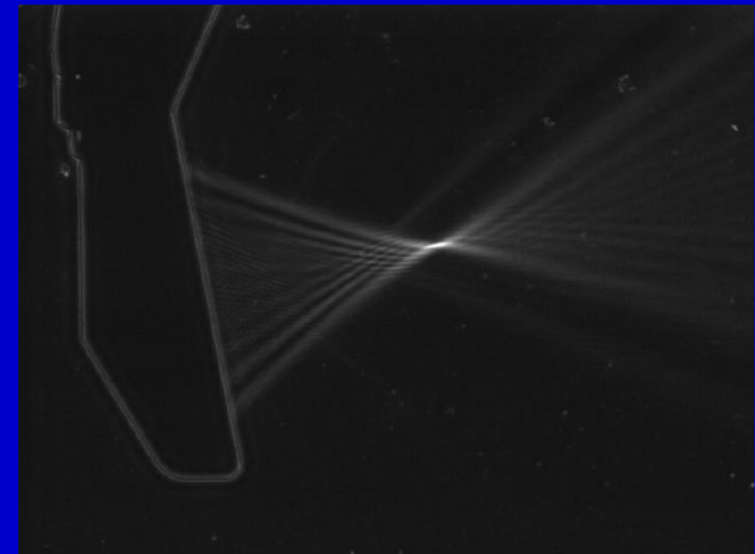


Fig. 2 Schlieren image of ultrasonic beam.