

ABSTRACT

An ultrasound-based handheld animal and plant tissue ablation instrument includes a housing internally provided with a control board and a drive board, and an ultrasonic vibrator fixedly connected to a front end of the housing. The ultrasonic vibrator includes an ultrasonic transducer and an amplitude transformer. The amplitude transformer is fixedly connected to a front end of the ultrasonic transducer, changes an amplitude of vibration input by the ultrasonic transducer and transmits out the vibration. The control board is provided with a power supply, a DCDC conversion unit, a main control unit, a DCDC power adjustment unit and a sampling unit. The drive board is provided with a drive unit, a transformer unit and a resonance unit. The housing is a handheld housing, and the housing includes a first section and a second section that are disposed at an obtuse angle to each other. The end of the first section away from the second section is the front.

Fig. 2 for publication