ABSTRACT

A high-gas pressure microfluidic device, comprising: a gas supply device (1), a gas pressure control device (2), a main control unit (3) and a microfluidic chip unit (4). The gas supply device (1) comprises an air compressor (12) provided in a first frame (11). The air compressor (12) is connected to the first frame (11) by means of an elastic assembly (13). The gas pressure control device (2) comprises: a gas storage tank (21) connected to the air compressor (12) by means of a gas pipe, a gas pressure sensor provided on the gas storage tank (21), and a gas pressure controller (22) provided between the gas storage tank (21) and the microfluidic chip unit (4). An electromagnetic switch is provided between the air compressor (12) and the gas storage tank (21). The main control unit (3) comprises a main control board (31). The main control board (31) is separately electrically connected to the air compressor (12), the gas pressure sensor, the gas pressure controller (22) and the electromagnetic switch.

FIG. 1