The thermal conductivity is measured according to the common technical standards. In particular, the thermal conductivity is measured according to the methodology established by ISO 22007. It should be noted that the measurements performed according to this standard are substantially compatible with those performed in accordance with ASTM 1225-09.

Advantageously, the wall 4 has a thickness up to 700μm (in particular, up to 600μm). More precisely, the wall 4 has a thickness up to 520μm (in particular, up to 450μm). Thicknesses below these limits are useful for allowing correct performance of treatment steps of the sample A which entail the production of heat (for example the PCR).

According to some embodiments, the wall 4 has a thickness of at least 40pm (in particular, at least 170μm). More precisely, the wall 4 has a thickness of at least 200μm (in particular, at least 250μm).

It is important to underline that, advantageously, the hollow device 2 is (dimensionally and structurally) suited to be used in standard PCR machines.

In this regard, we underline that, advantageously, the materials and the roughness are chosen so as to avoid the absorption of DNA/RNA fragments. The materials are chosen so as not to prevent WGA processes. The materials are chosen so as to withstand high temperatures (greater than 100°C), such as those reached during the PCR thermal cycles.

In particular, it should be noted that the hollow device 2 can be obtained by cutting (and removing) the upper part of a test tube for PCR and the tip of the test tube. The hole (opening 4 10) obtained corresponding to the tip is closed by a membrane (which therefore acts as a filter 9) connected to the test

CLAIMS

1. - A hollow device for treating a biological sample (A; B), in particular for separating at least a particle (C) and at least part of a liquid (D) from each other; the hollow device (2) comprises an inner chamber (3), which has a volume up to 2mL; a first end (6); a first opening (5), which is arranged in the area of the first end (6), establishes a communication between the outside and the inner chamber (3) and has an area of at least 9mm^2; and a second end (7);

the hollow device ~~(3)~~ (2) is characterised in that it comprises a filter (9), which is arranged in the area of the second end (7), separates the inner chamber (3) from the outside, has pores with diameters ranging from 2nm to 1µm, an area (S) facing the inner chamber (3) up to 12.6mm^2, and a thickness up to 500µm; the filter (9) does not have pores with diameters greater than 1µm and has the majority of pores with diameters of at least 2nm.

2. - A hollow device according to claim 1, wherein the filter (9) has a hold-up volume lower than 2µL and an area (S) facing the inner chamber (3) of at least 0.1mm^2; the hold-up volume is measured as follows: an initial known volume of solution is placed in the hollow device (2); the hollow device (2) is arranged in a discharge element (22); it is centrifuged (approximately 2000rpm for two minutes) so that there is no more solution in the inner chamber (3); the volume of liquid collected is measured and the volume measured is subtracted from the initial volume.

3. - A hollow device according to claim 1 or 2, and comprising at least one wall (4), which delimits the inner chamber (3) and has a second opening (10) opposite to the first opening (5), which second opening (10) has an area from 0.2mm^2 to 13mm^2; the filter (9) having a thickness from 1µm to 250µm and covering in a substantially complete manner the second opening (10); the wall (4) having a thermal conductivity from 0.08W/mK to 0.7W/mK and a thickness up to 700µm; the inner chamber (3) having transverse sections with areas from 10mm^2 to 80mm^2; the filter (9) having pores with diameters ranging from 250nm to 600nm; the thermal conductivity is measured according to common technical standards and, in particular, it is measured accordingly to the methodology established by ISO 22007.

4. - A hollow device according to one of the previous claims; the hollow device (2) has a substantially tubular shape and, at least partially, the shape of a truncated cone; in