Electronic Supplementary Material (ESI) for Lab on a Chip

A Magnetic Resonance (MR) Microscopy System using a Microfluidically Cryo-Cooled Planar Coil

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Supplimentary Information

Instead of measuring the temperature gradient along the long axis of the coil, the coil substrate temperature (on the backside of the coil) was measured. In Table S1, the temperatures near the liquid nitrogen inlet and outlet region were initially different. After 10 minutes of cryo-cooling, they converged and then reached below -190°C after 20 minutes. There was no temperature gradient along the coil axis.

Table S1. Temperature on the backside of the coil after cryo-cooling.

Time (min)	Temperature near the inlet (°C)	Temperature near the outlet (°C)
0	21.9	21.9
5	-111.1	-143
10	-181	-177.7
15	-191	-188
20	-192	-190
25	-191	-193.2
30	-192	-193