Supplement S3 S4 S5

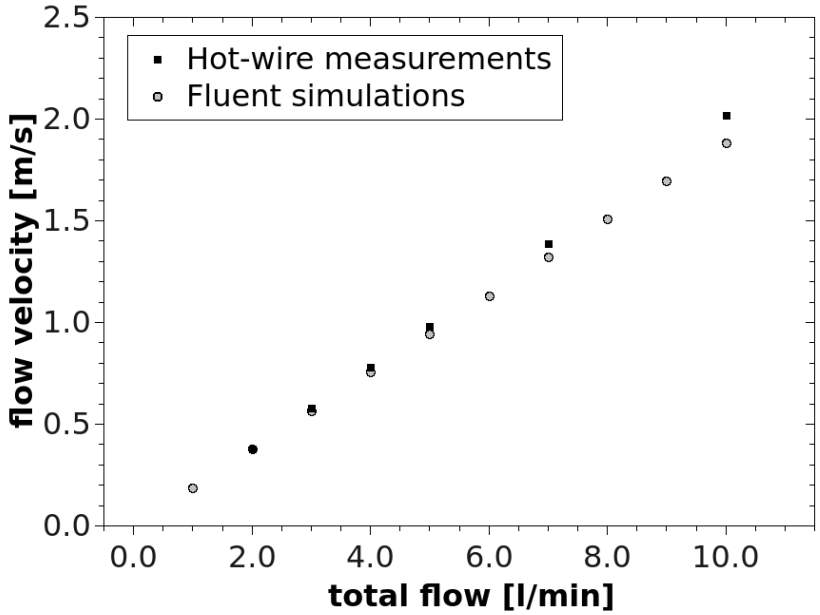

Figure S3: Measured and simulated velocity at the center outlet of the laminar flow diffusion chamber with respect to the total flow. The measurements were done by means of an hot-wire anemometer (Dantec Dynamics, Denmark). The miniature hot-wire sensor (Dantec 55P11 sensor) was fixed at the tube outlet in the measuring volume of the laser beam. Single point measurements were done in dependence of the total flow. The data were compared to Fluent simulation results. Both, measurements and simulations were done at 20° and dry conditions.

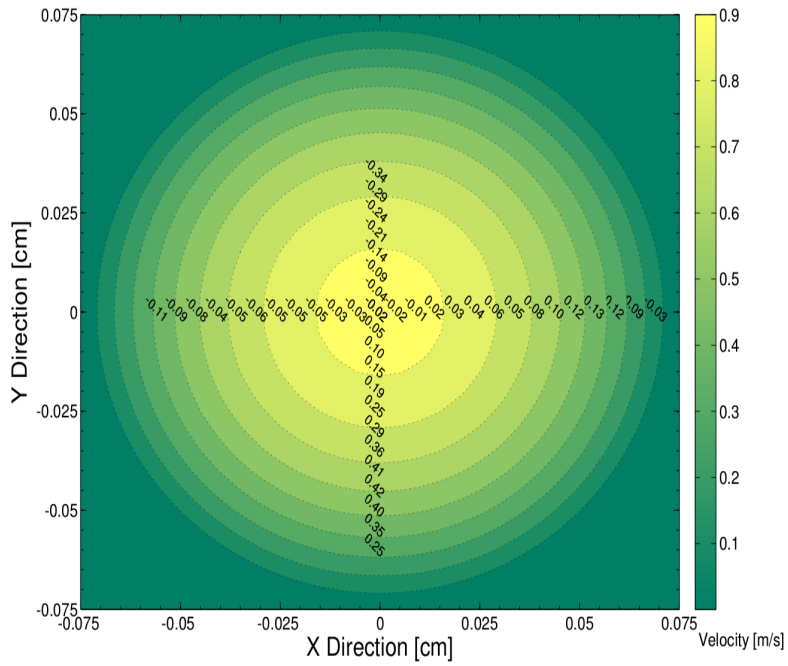

Figure S4: Illustration of calculated velocity data (contour plot of Fluent simulation results) and the difference between measurements and calculations (values). The position of the numbers corresponds to the measurement position of the hot-wire sensor in the cross sectional profile at the tube outlet.

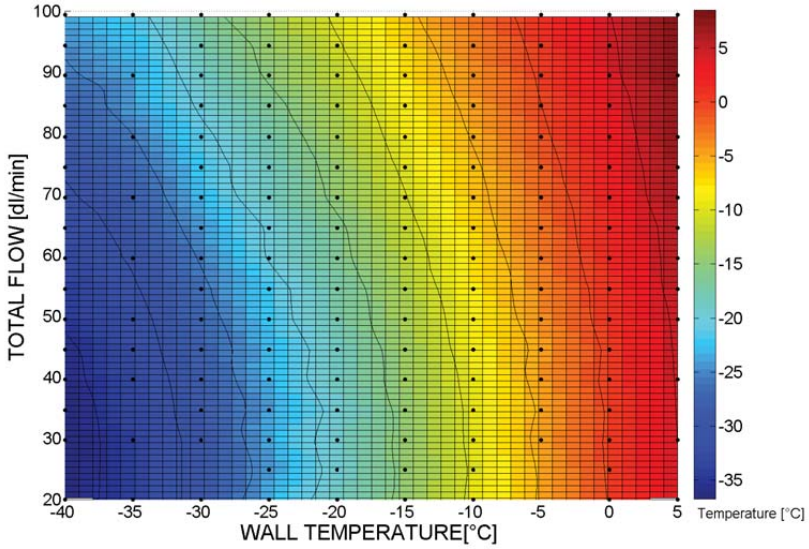

Figure S5: Contour plot of the temperature characterization results. The figure was obtained by a linear interpolation of the temperature measurements (black dots). the black lines are temperature isolines. The figure illustrates that IRIS can be used over a broad temperature range.