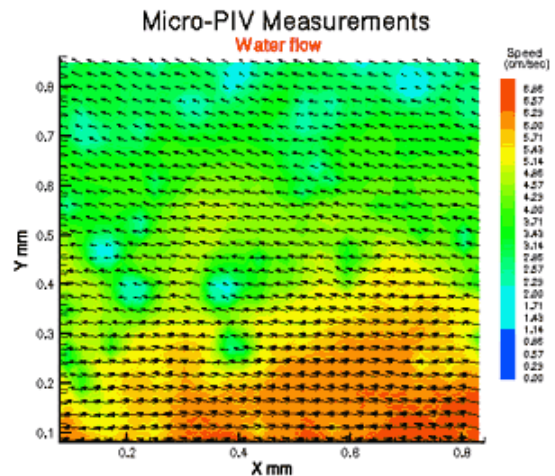


MEASUREMENTS IN A MICROCHANNEL

APPLICATION NOTE MicroPIV-002

There are many areas in engineering where it is necessary to characterize the flow field in regions, which are in sub-millimeter to micron scale. The flow field is often complicated, influence of boundaries difficult to characterize and interactions hard to predict.

A MicroPIV system using Model 610048 MicroPIV Optical Assembly was used to characterize the flow field in a channel, which is less than 1×1 mm in cross section. Fluorescent particles were used to seed the flow. The images were captured using a PIVCAM 10-30 camera. The imaging of the microchannel was done through the optics designed for MicroPIV applications. This ensures that the image of the flow field "fills" the sensing area of the camera. INSIGHT™ software package provided the control of the hardware including lasers and cameras, acquisition of the images, and the analysis and display of results.



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