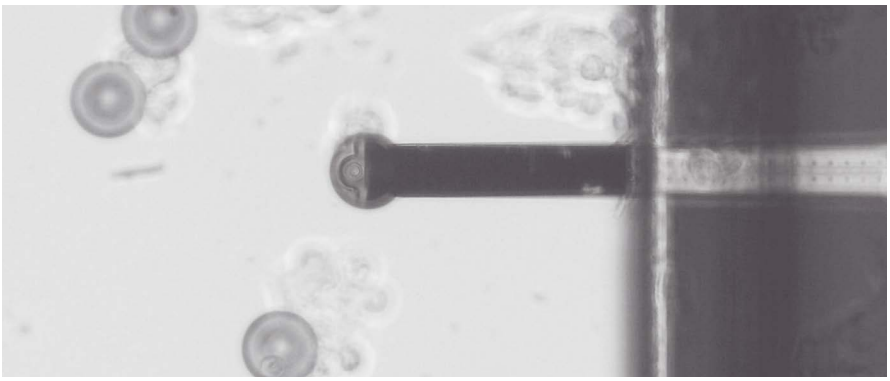
EXCHANGEABLE COLLOID PROBE

Spherical colloids are the most suitable probes for local elasticity measurements on complex substrates. While colloidal probes are inherently difficult to produce and handle, FluidFM® technology overcomes these limitations in order to give you unparalleled flexibility for your most demanding research requirements.



STRONG STATISTICS. 60 µm polystyrene colloids are used to quickly asses cell adhesion. *Courtesy of Dörig P., ETH Zurich*

FluidFM® GIVES YOU THE EDGE.

Imagine renewing your AFM colloidal probe in-situ without having to completely replace the entire probe. **FluidFM®** technology makes opting for a completely fresh probe inherently easy. The simple, yet universal approach enabled by **FluidFM®** technology allows it to reversibly attach micro- and nanospheres to an atomic force cantilever in order to function as a colloidal probe.

Quantify long-term or irreversible interactions by using each colloidal probe only once. Fast, in-situ renewal of your probe is possible with **FluidFM®** technology – at virtually no cost. Obtain solid statistics in short periods of time by measuring more data points than ever before. The versatility of **FluidFM®** thereby allows you to use solid, liquid and gaseous colloids as required by your experiment.

THE PROCEDURE IN BRIEF.

The colloids are seized and reversibly attached to the **FluidFM®** probe by applying an underpressure to the microfluidic channel. Once measurements with the attached colloid concludes, it can be easily detached from the probe by application of a short overpressure pulse.

PUBLICATIONS

– 2013. P. Dörig, D. Ossola, A. M. Truong, M. Graf, F. Stauffer, J. Vörös & T. Zambelli. Exchangeable colloidal AFM probes for the quantification of irreversible and long-term interactions. *Biophysical Journal, 105*(2), 463–472. doi:10.1016/j.bpj.2013.06.002

– 2015. B.R. Simona, L. Hirt, L. Demkó, T. Zambelli, J. Vörös, M. Ehrbar & V. Milleret. Density gradients at hydrogel interfaces for enhanced cell penetration. *Biomater. Sci.* doi:10.1039/C4BM00416G

∞	pN	>1	sub µm
PROBES PER CANTILEVER	FORCE RESOLUTION	PROBE PER MINUTE	COLLOIDS

CONTACT US.

We offer complete support for our customers and distributors. Please visit the Cytosurge Help Center in order to access the **FluidFM®** user community. **www.fluidfm.com**

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