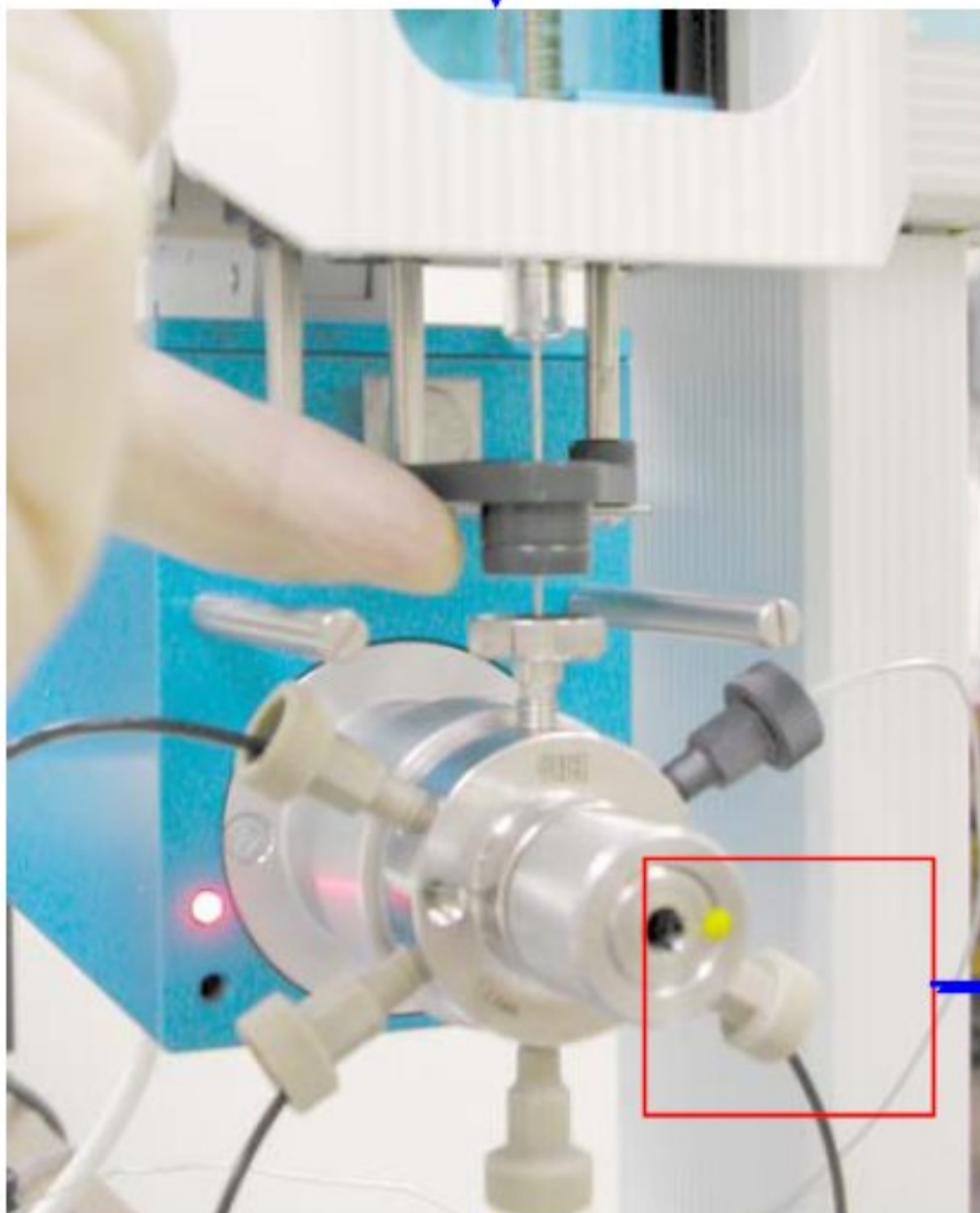
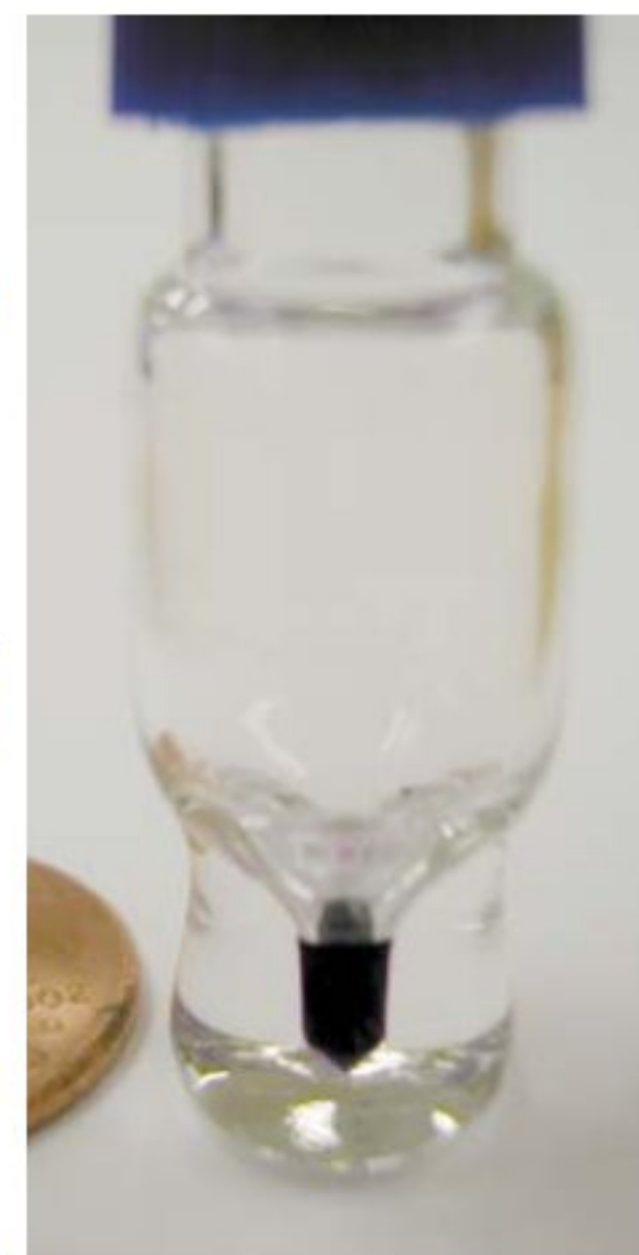




### Load 5-10 uL without Dispersion

Get your sample loaded quickly using the Protasis High Throughput Sample Loader (HTSL). The key to effective transport of microliter volumes is small diameters. To ensure rapid loading without dispersion, Protasis uses narrow diameter (50 to 75 mm I.D.) fused silica tubing to transport microvolume samples from the liquid handler over to the CapNMR probe (and magnet). This requires chromatography-grade pumps to deliver precisely metered microliter per minute flows at up to 2000 psi backpressures. The result is fast, efficient high pressure sample loading in one to two minutes.

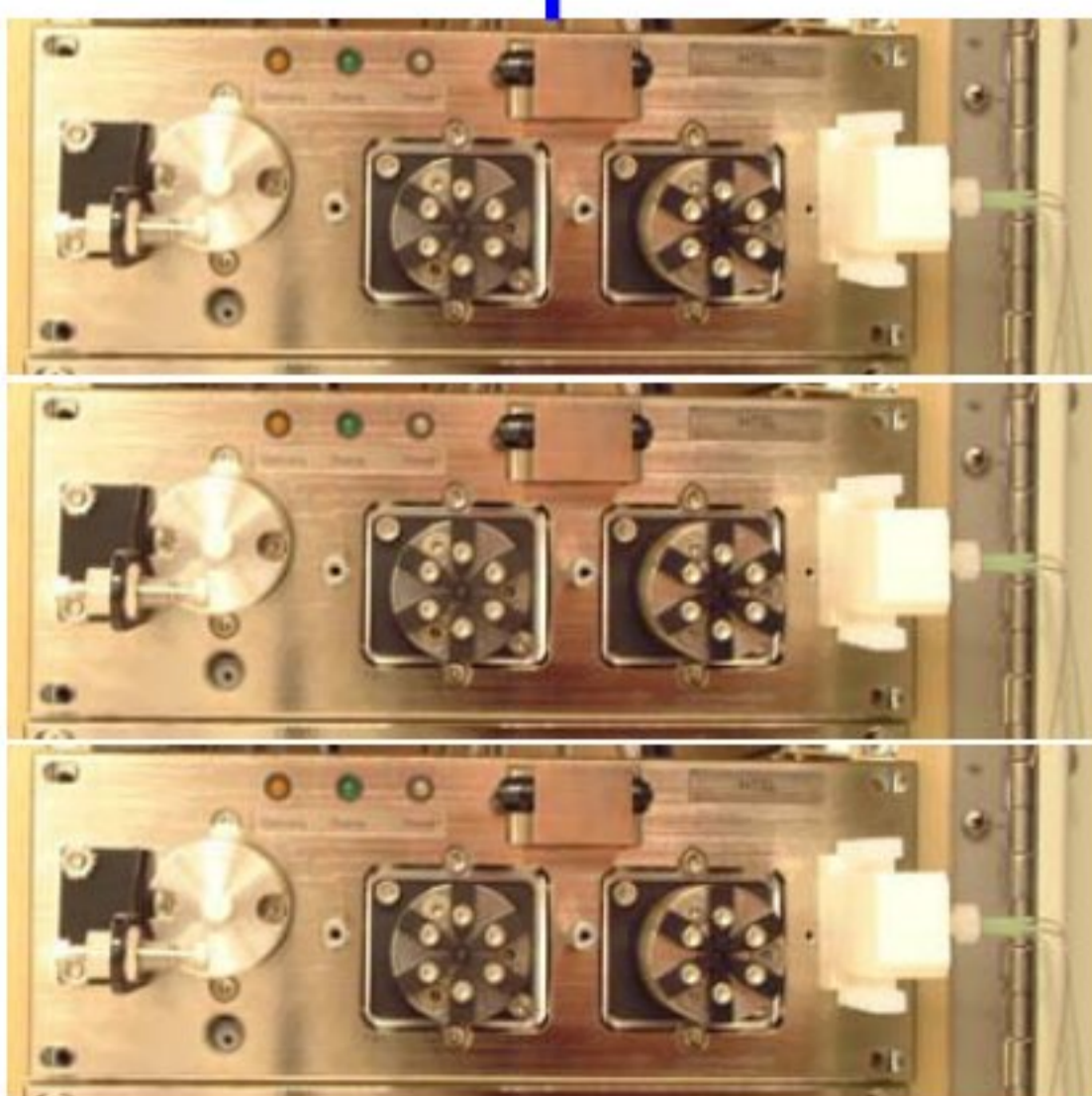


### Syringe-Only Technology

The syringe-only concept of the PAL series of sample loaders combines the manual sample injection procedure with the precision and throughput of a robotic liquid handling system. Samples are aspirated with a conventional liquid syringe and are transferred directly into the sample loop. No error prone teflon tubing or transfer lines are involved during the sample loading process. Before and after each injection the syringe and syringe needle (needle inside and rinsed in a Wash Station different cleaning solvents. This unique design virtually eliminates sample carryover and adsorption problems.



(needle inside and rinsed in a Wash Station different cleaning solvents. This unique design virtually eliminates sample carryover and adsorption problems.



**Multiple Solvents**  
Manage up to three different solvents with the Discovery Tower

### Transfer Up To 5 Meters To Your Magnet

Have an unshielded magnet? The Protasis HTSL can transfer your sample up to 5 meters away with minimal band broadening. Pressure monitoring during the run with automatic shutdown upon overpressure. Flowrates from 1 to 40 uL/min.

