

Bullet-DNP

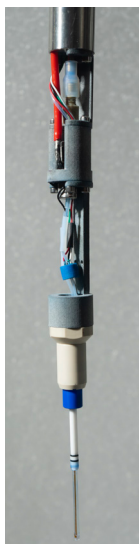
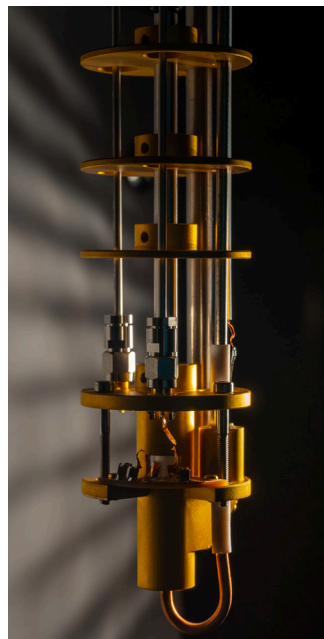
Fast, scalable and affordable dissolution-DNP.

Bullet-DNP facilitates rapid dissolution of small samples at minimal dilution.

Liquid-state ^{13}C polarization levels of 30% have been achieved and reported, at less than 10-fold dilution. Sample ejection and dissolution are fully automated. Magnetic tunnels to connect the DNP insert to the injection dock are available.

See our Nat Commun paper at
doi:10.1038/s41467-019-09726-5

New: Dual drive ejection with 20-fold reduced heat load during sample ejection.



Injection-Dock

Reliable injection of aqueous and organic solvents within one second. Achieves resolution of 30 ppb (3 Hz on ^{13}C in a 400 MHz magnet). See our recent paper in Magn. Reson. Discuss. at <https://doi.org/10.5194/mr-2021-57>

Developed for bullet-DNP, the injection dock loads liquid samples into a 3 mm flow NMR tube. It fits into narrow-bore magnets, and features a solvent reservoir with temperature control, and a pneumatically actuated valve.

The injection dock is also compatible with conventional dissolution-DNP and can stay in the magnet between experiments.