Supplementary information for: High throughput light-coupled NMR platform, a scalable off-the-shelf approach

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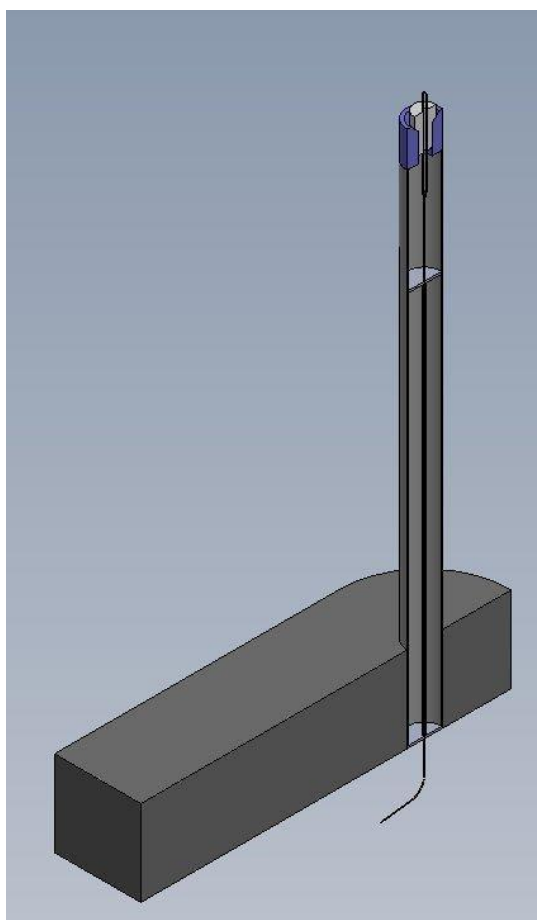
Figure S1: CAD drawing of a Bruker CryoProbe with an optical fiber inserted via the bottom flow-accessory port.
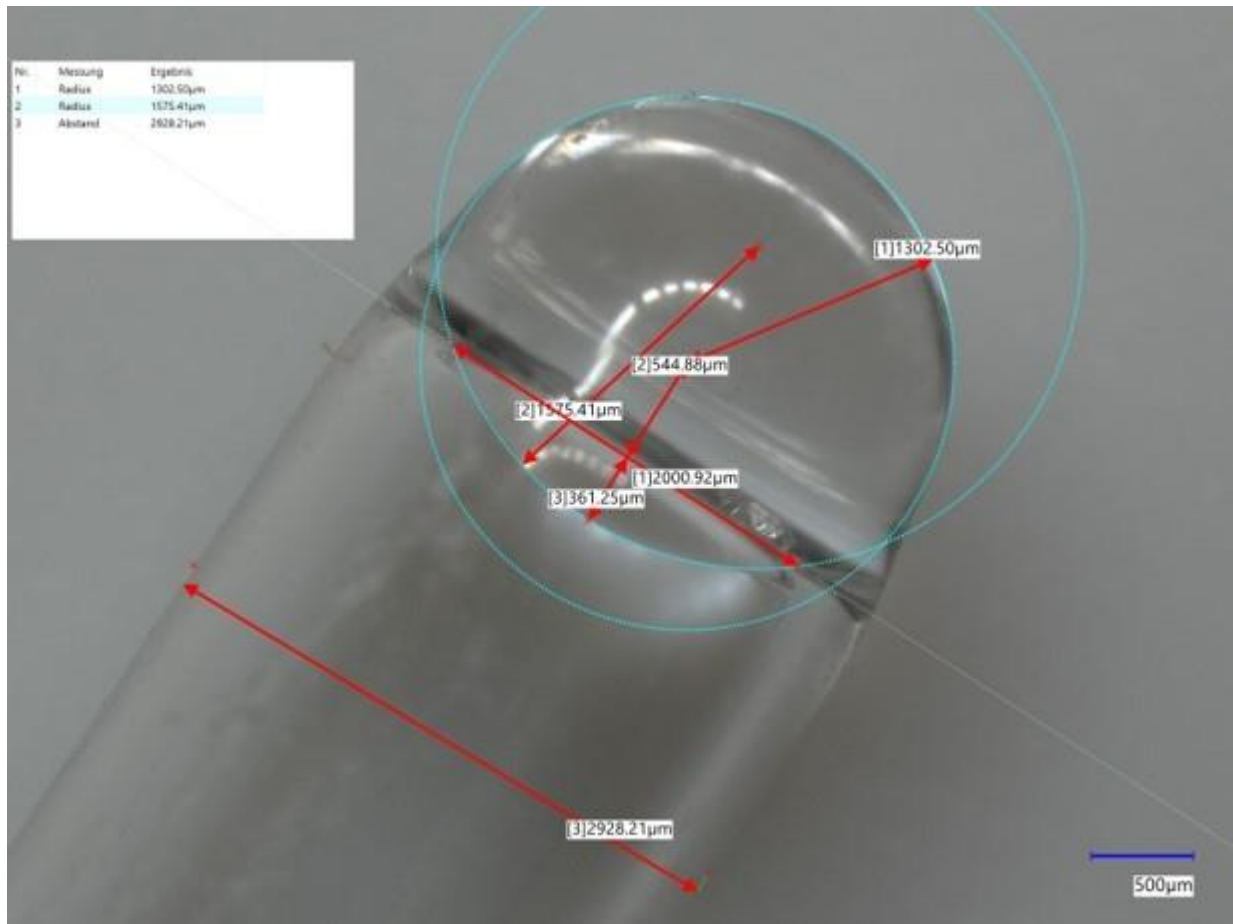
Figure S2: Microscopic photograph of a 3mm NMR tube with lensed bottom with lensed bottom. The lensed bottom is usually present in standard tubes. The two circles define the two curvatures of the convex lens.
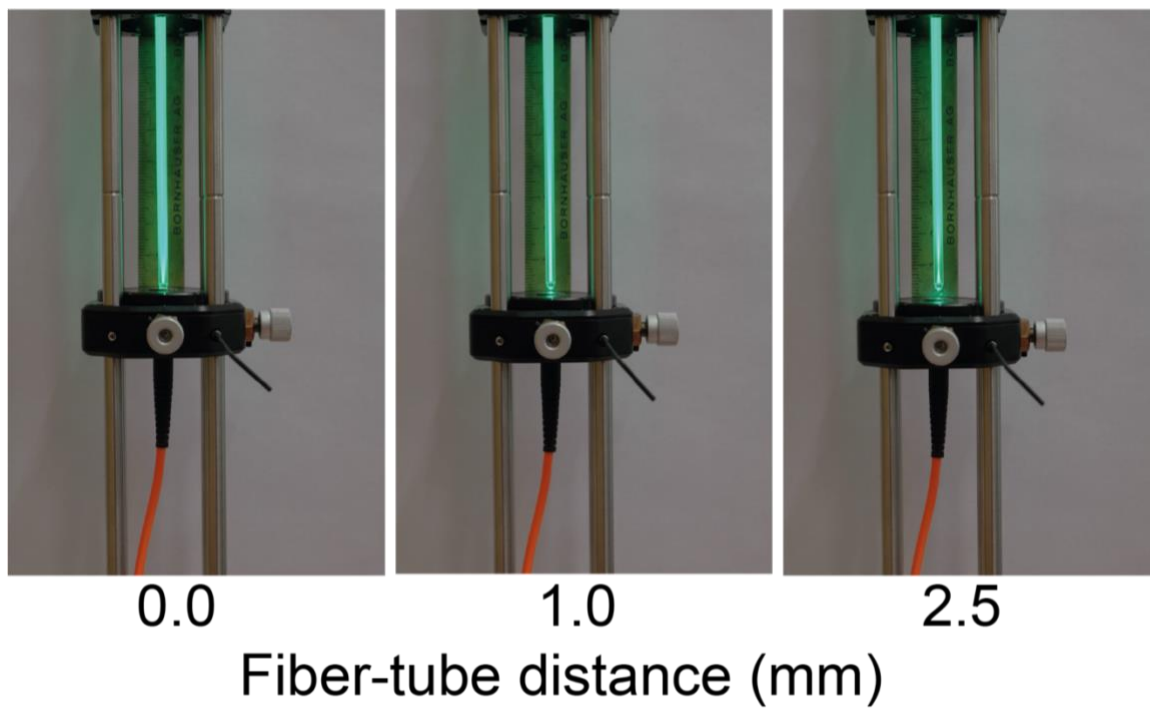
Figure S3: Benchtop experiment with a fiber NA=0.22 and a 3mm NMR tube. The fiber is positioned at different distances along the z-axis from the NMR tube: 0.0, 1.0, and 2.5 mm.
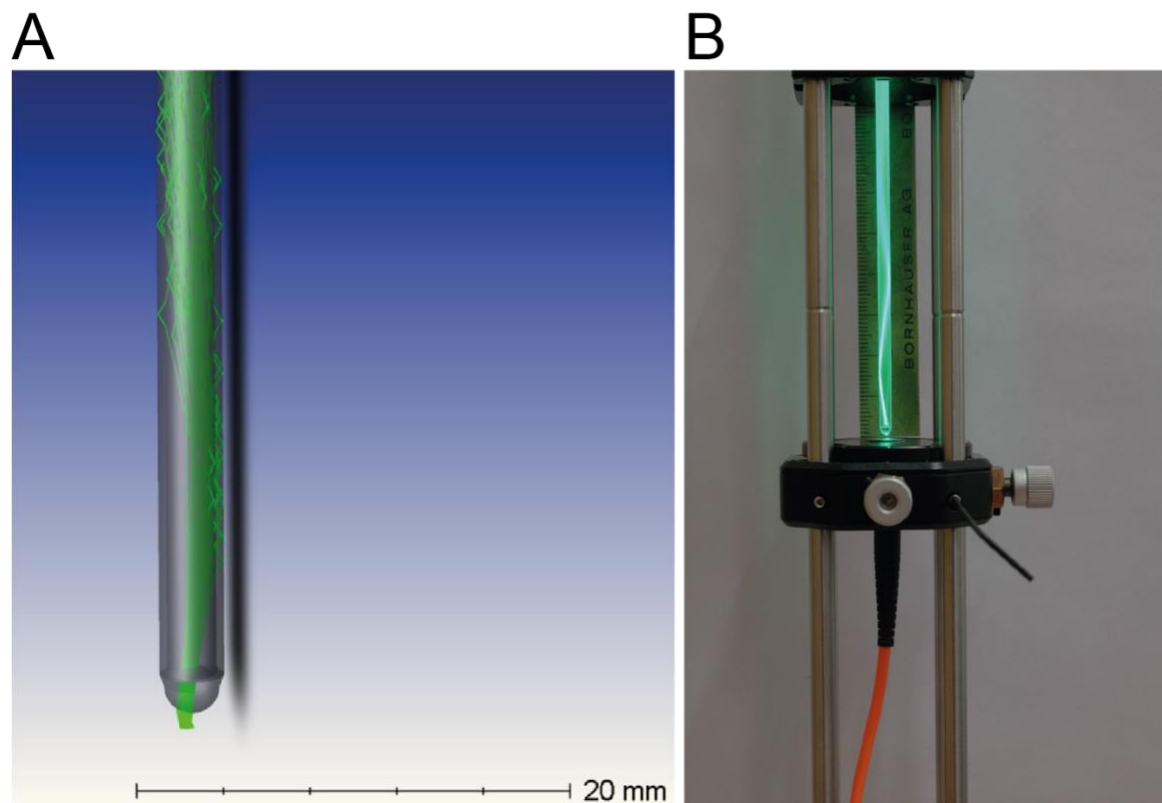
Figure S4: A) Monte Carlo simulation of diffracted rays into the sample volume. The rays exit the fiber in a light cone defined by the fiber NA (0.22) with a y-axis offset of 0.2 mm. B) Benchtop experiment with a fiber NA=0.22, a 3mm NMR tube, and a transverse offset of 0.5 mm. In agreement with the simulation, the light beam is reflected at the sample walls via total internal reflection.