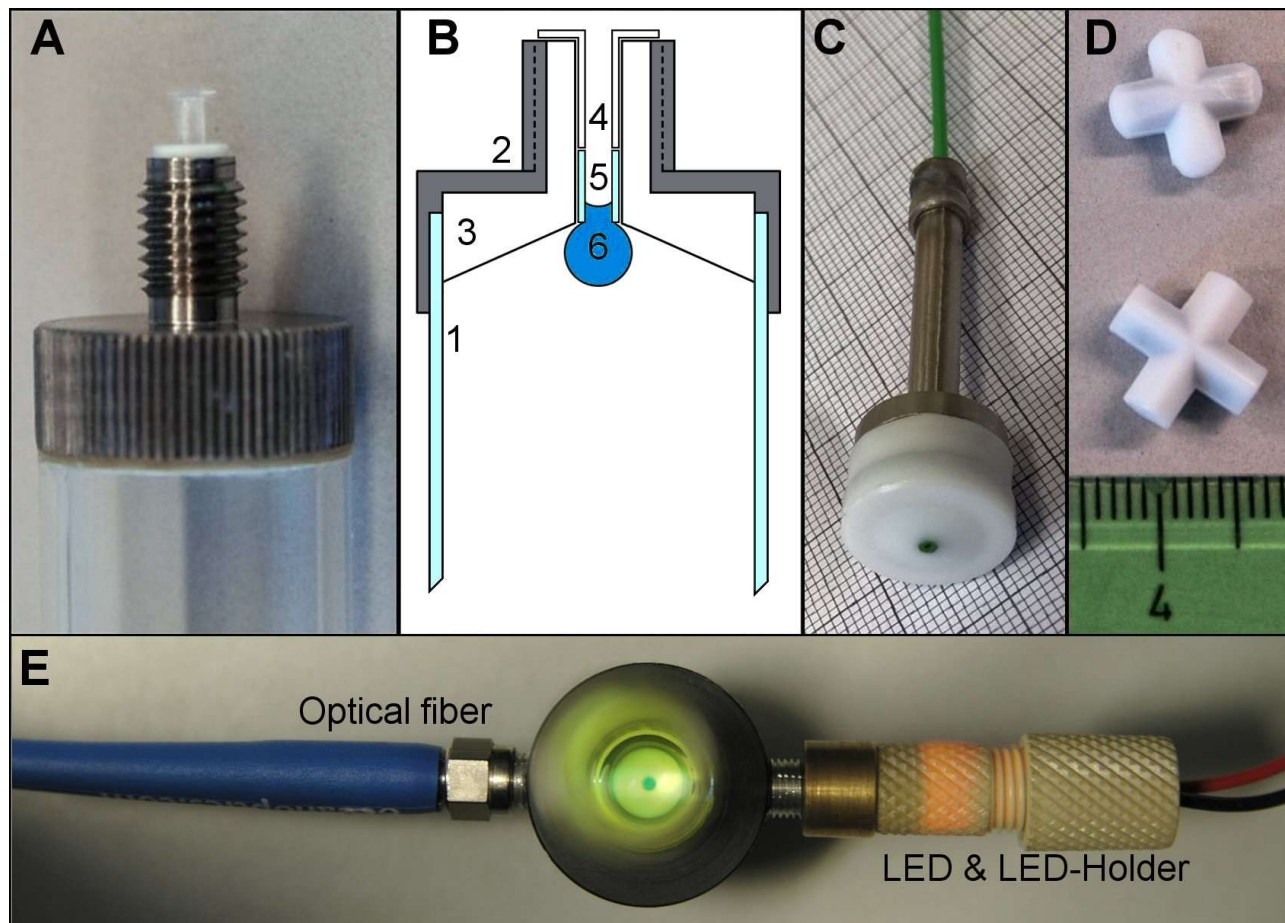


Automation technique Lab-In-Syringe: A practical guide

Supplementary Materials

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10 **Figure S1.** Details to LIS system adaptation. (A) Insert of a piece of PTFE tubing into syringe inlet to decrease diameter, (B) Decrease of inlet diameter as in A plus insert of glass capillary to increase inlet wettability and allow stable formation of a single drop for headspace extraction (1-Glass barrel, 2-Metallic casing, 3-crimp connection of PTFE, 4-PTFE tubing insert, 5-Glass capillary, 6-Drop) [19,23], (C) Syringe piston featured with secondary inlet flow line to syringe void, (D) Stirring cross, original and shaped to remain in the syringe inlet when using upside-down orientation enabling e.g. insolvent-drop stirring [51]. (E) Lightpath using a fiber adaptor for in-syringe spectrophotometric detection visualized with fluorescein.



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Figure S2. Preparation of a brush-less motor for in-syringe stirring. (A) Use of a computer fan with pulse-width modulation control of velocity, (B) cutting away the supporting frame, (C) breaking off all wings, (D) sanding down excess ends to obtain a smooth surface shell. (E) 3D printed motor attachments for NdFeB magnet placement (E2) or pulley-wheel function (E3, E4) and motor supports as shown in Figures 3 and 4 (E1, E5).

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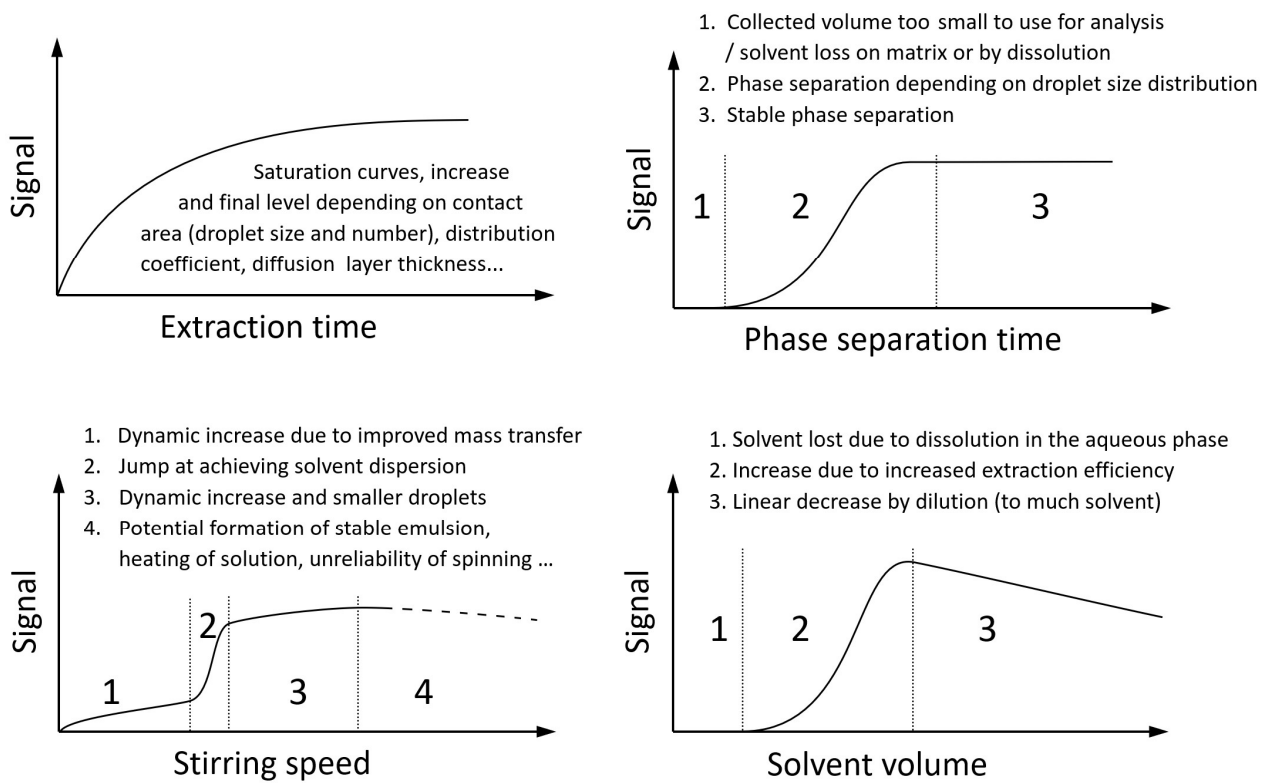


Figure S3. Typical signal dependencies in the optimization of DLLME protocols automated by Lab-In-Syringe.