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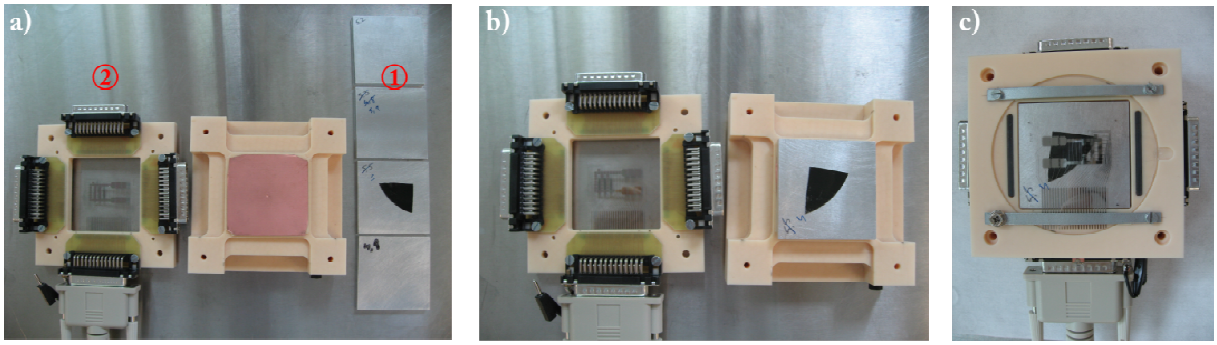
Supplementary Information



SI Figure 1. Teflon support allowing droplet displacement by electrowetting. The silicon nanowires substrate (triangular black surface) is placed on a metallic spacer connecting to the ground (a.1) and a 1µL droplet is deposited on the electrode base (a.2). Then, we encapsulate the system and displace the droplet as described in the paper. For the rinsing step, the same protocol is applied. After the experiment, the system is opened, the droplet removed from the base and the silicon nanowires substrate placed into the mass spectrometer for analysis.

Safety considerations:

The mixture H_2SO_4/H_2O_2 (piranha) solution is a strong oxidant. It reacts violently with organic materials. It can cause severe skin burns. It must be handled with extreme care in a well-ventilated fume hood while wearing appropriate chemical safety protection.

HF is a hazardous acid which can result in serious tissue damage if burns were not appropriately treated. Etching of silicon should be performed in a well-ventilated fume hood with appropriate safety considerations: face shield and double layered nitrile gloves.