

# Supporting information for Dried Blood Spot Recovery: A Microfluidic Technique for Fast Elution Without Dilution

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### Standard curve for the fluorescein concentration in our microfluidic chip

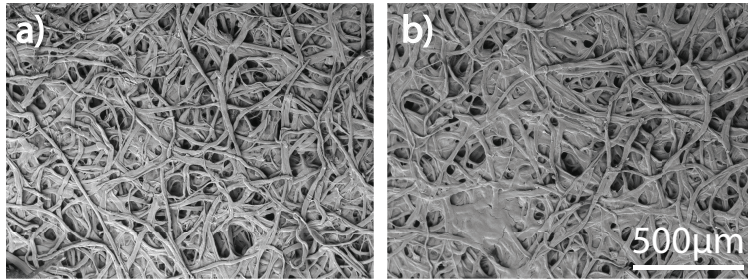


Figure S1: a) Electron microscopy picture of Whatman 903 without a) and with b) dried blood.

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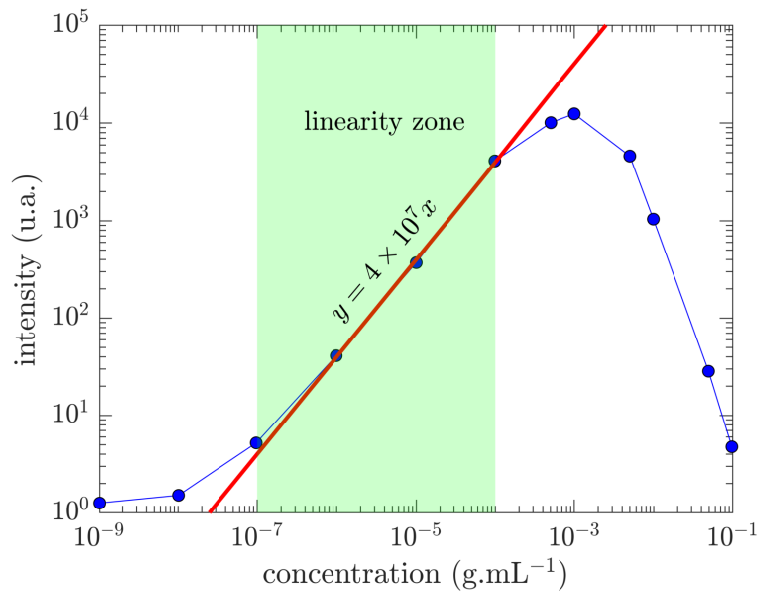


Figure S2: Calibration curve for fluorescence intensity signal as a function of the fluorescein concentration in our microfluidic chip

## Interaction between DBS and Buffers during the elution process

Some elution buffers, like water, dissolve back in solution all the dried blood. Other elution buffers only recover a fraction of the dried blood. For instance, Methanol precipitates proteins of the dried blood. At the end of the elution process, only the amino acids are removed from the DBS which seems to return to its original state before the elution. Fig. S3 shows an example of DBS after elution with water and methanol. The proteins of the DBS are only eluted with water, and not with methanol.

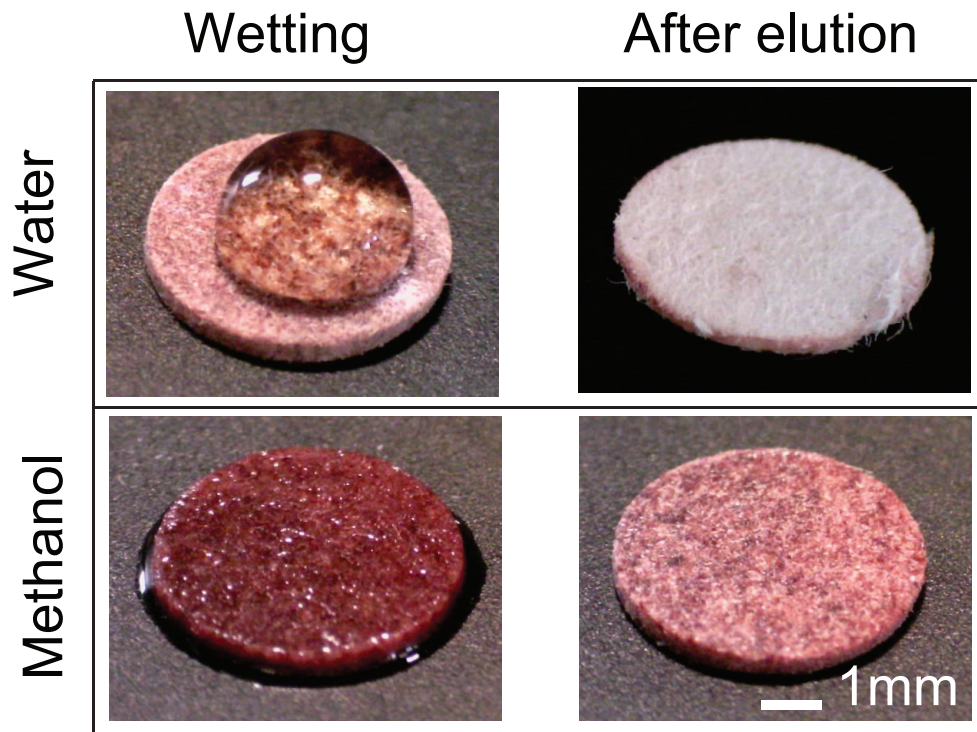


Figure S3: Interactions between DBS and two elution buffers. Wetting column shows drops of water and methanol spotted on 5mm DBS. Methanol percolate through the DBS pores while water does not. The “after elution” column shows DBS after the elution process: Water dissolves all the dried blood while methanol only dissolves amino acids and precipitates blood’s proteins.