sensors

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*Supplementary Information*

# Study of Alzheimer's Disease-Related Biophysical Kinetics with a Microslit-Embedded Cantilever Sensor in a Liquid Environment

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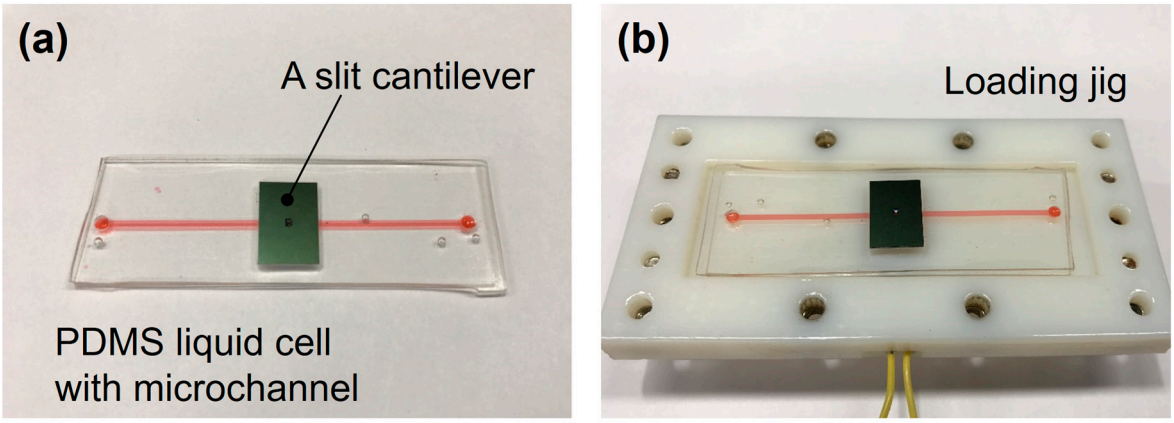


**Figure S1.** Preparation of slit the cantilever for measuring the resonant frequency in a liquid environment with (a) a PDMS liquid cell and (b) assembly of a loading jig

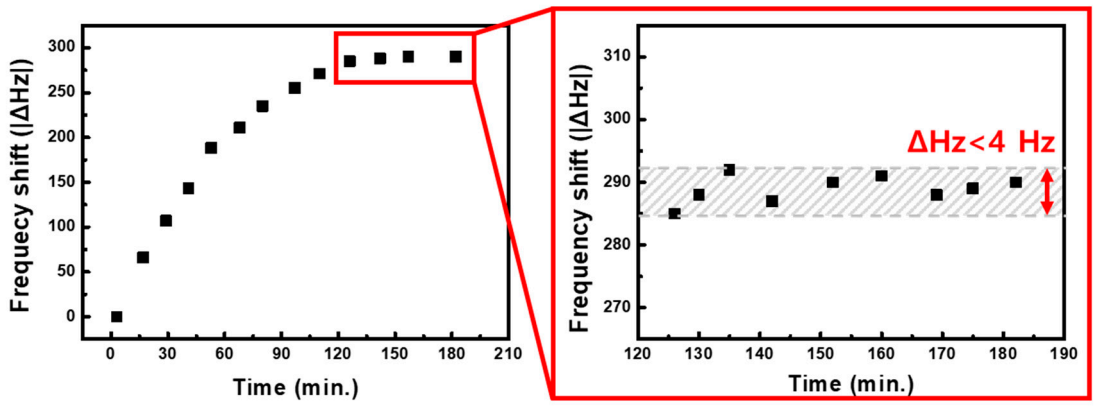


**Figure S2.** Measuring resonant frequency shifts of slit cantilever in the liquid environment showing a drift effect with exposed time until steady state.

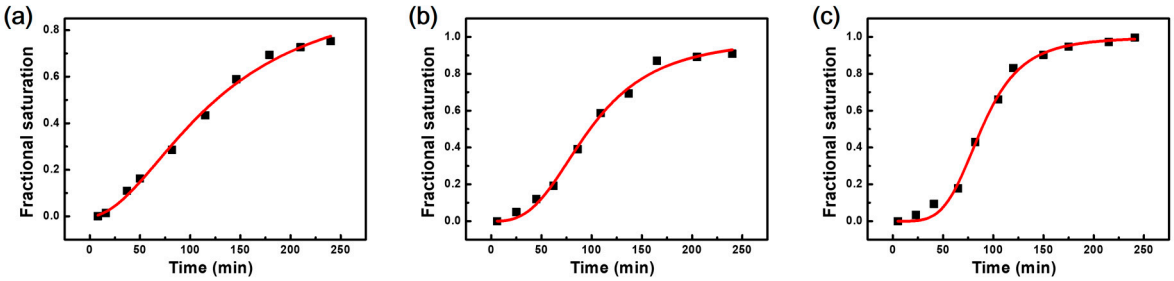


**Figure S3.** Fitting the time-dependent responses to the thermodynamic isotherm in case of added Aβ42 concentration of (a) 100 ng/mL, (b) 1 μg/mL, and (c) 10 μg/mL added on slit cantilever.

**Table S1.** Comparison of theoretical and actual values of 1st~3rd mode resonant frequency of the slit cantilever in air.

| Mode | Theoretical frequency | Measured frequency | Difference | C.V. in wafer-level |
|---|---|---|---|---|
| 1st | 16.209 kHz | 15.872 kHz | 2.1% | |
| 2nd | 101.588 kHz | 103.165 kHz | 1.5% | < 5% |
| 3rd | 284.480 kHz | 289.429 kHz | 1.7% | |