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.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Theoretical frequency</th>
<th>Measured frequency</th>
<th>Difference</th>
<th>C.V. in wafer-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>16.209 kHz</td>
<td>15.872 kHz</td>
<td>2.1%</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>2nd</td>
<td>101.588 kHz</td>
<td>103.165 kHz</td>
<td>1.5%</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>3rd</td>
<td>284.480 kHz</td>
<td>289.429 kHz</td>
<td>1.7%</td>
<td></td>
</tr>
</tbody>
</table>