**Electronic Supplementary Information**

# A Doubly Cross-linked Nano-adhesive For the Reliable Sealing of Flexible Microfluidic Devices

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**Figure 1S.** XPS C1s high resolution scan for PGMA (top) and PGMA reacted with EDA (bottom).

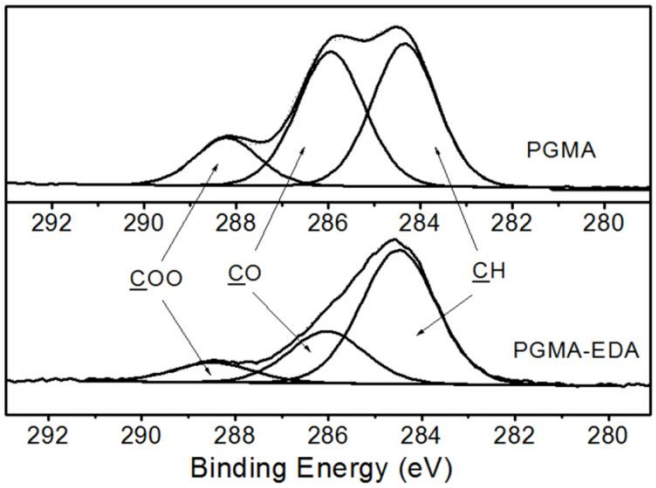


**Table 1S.** Burst pressures obtained from different bonding methods reported in the literature.

| Bonding Method | Sample | Channel dimensions (μm) | Maximum Burst Pressure (kPa) | Reference |
|---|---|---|---|---|
| DCNA | PET/glass | W: 100<br>H: 50 | 11700 | - |
| iCVD deposition | PDMS/glass | W: 400<br>H: 150 | >1035 | *Chem. Mater.* **2010**, *22*, 1732 |
| APTES and GPTES-assisted bonding | PDMS/U-PET | W: 500<br>H: 150 | >607 | *Lab Chip* **2010**, *10*, 1274 |
| APTES-assisted bonding | PDMS/PC | W: 600<br>H: 45 | >528 | *Lab Chip* **2011**, *11*, 962 |
| PDMS-assisted interfacial bonding | PDMS/PET | - | 400 | *Adv. Mater.* **2011**, *23*, 5551 |
| PU bonding (dry and wet) | PU/PU | W: 150<br>H: 10 | 326.4±19.6 | *Lab Chip* **2012**, *12*, 960 |

**Movie 1S.** Movie showing a PET/PET microfluidic device completely folded. As shown, the device operates well even when it is completely folded.

**Movie 2S.** Movie showing a PDMS/PET microfluidic device rolled and fastened around a pen. As shown, the device operates well without any delamination.