## Chemically robust succinimide group-assisted irreversible bonding of poly(dimethylsiloxane)–thermoplastic microfluidic devices at room temperature

Rajamanickam Sivakumar<sup>a</sup>, and Nae Yoon Lee\*<sup>b</sup>

 <sup>a</sup> Department of Industrial and Environmental Engineering, College of Industrial Environmental Engineering, Gachon University, 1342 Seongnam-daero, Sujeong-gu, Seongnam-si, Gyeonggi-do, 13120, Korea.
<sup>b\*</sup> Department of BioNano Technology, Gachon University, 1342 Seongnam-daero, Sujeong-gu, Seongnam-si, Gyeonggi-do, 13120, Korea.
E-mail: nylee@gachon.ac.kr (Prof. N.Y.Lee)



Fig S1. High resolution XPS spectra for PC. (a) survey spectrum, (b) C1s, and (c) O1s.



**Fig S2.** High resolution XPS spectra for APTES-coated PC. (a) C1s, (b) O1s, (c) N1s (d) Si2p and (e) survey spectrum.



**Fig S3.** Results of delamination test when various substrates (PMMA, PS, PC, and PET) were used for bonding with PDMS.



Fig S4. Schematic illustration of leakage test.

## Table S1

Atomic ratio of pristine PDMS and TESPSA coated PDMS

Substrate	Spectrum	Atomic ratio (%)
Pristine PDMS TESPSA coated PDMS	Ols	42.9
	C1s	40.1
	Si2p	16.8
	O1s	41.0
	C1s	41.1
	Si2p	17.8