Room-temperature bonding of glass chips via PTFE-assisted plasma modification for nanofluidic applications

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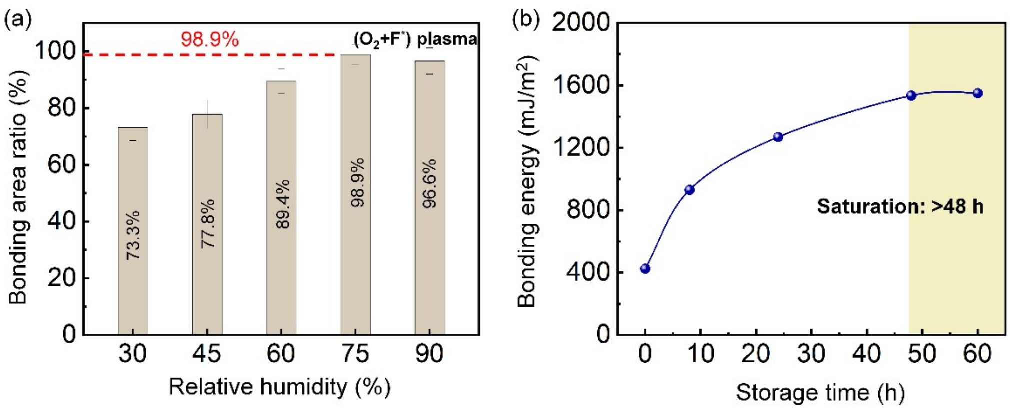

Fig. S1. (a) The characterization of bonding efficiency with different relative humidity. (b) Room temperature bonding energy of glass-glass as a function of storage time in ambient air.

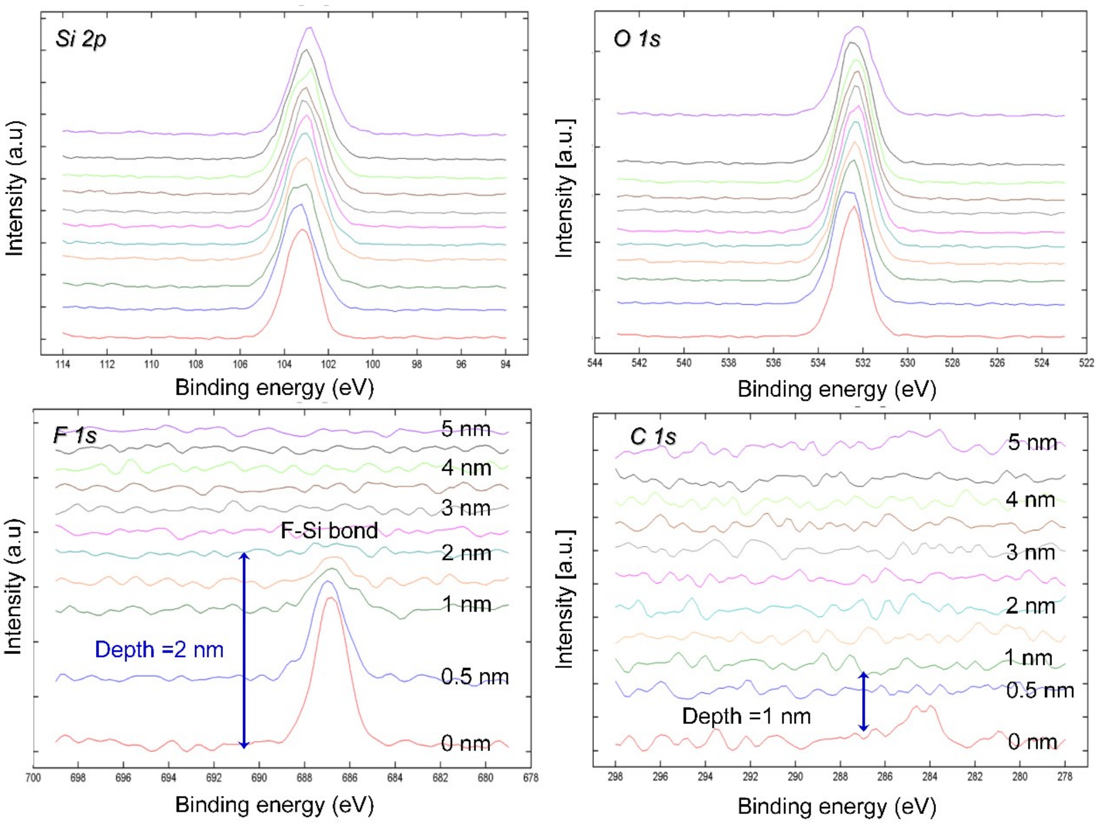

Fig. S2. The XPS compositional depth analysis of glass surface activated via (O_2+F^*) plasma.

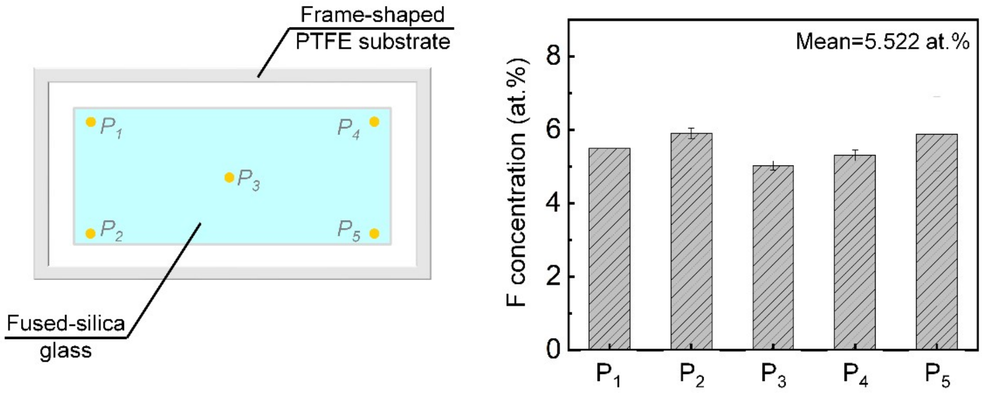

Fig. S3. (a) Schematic of five positions on the fused-silica glass surface for the XPS measurements and (b) the atomic concentrations (at.%) of fluorine at the corresponding positions after (O_2+F*) plasma treatment for 40 s.

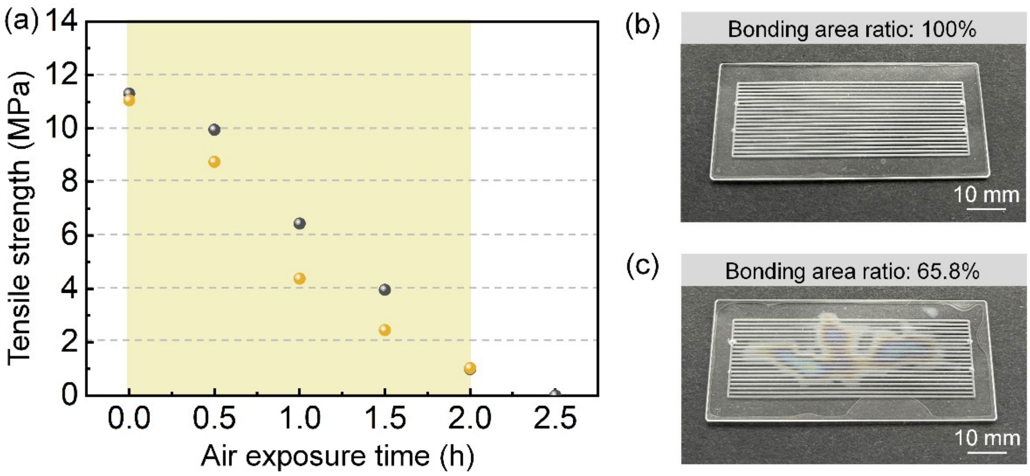

Fig. S4. (a) The evaluation of bondability of (O_2+F^*) plasma activated surfaces with different air exposure times before bonding at RH=75% in the atmosphere. The photographs of the bonding area obtained with an air exposure time of 0 h and 1 h are shown in (b) and (c), respectively.