

Supplementary file

Real-time mechanical characterization of DNA degradation under therapeutic X-rays and its theoretical modeling

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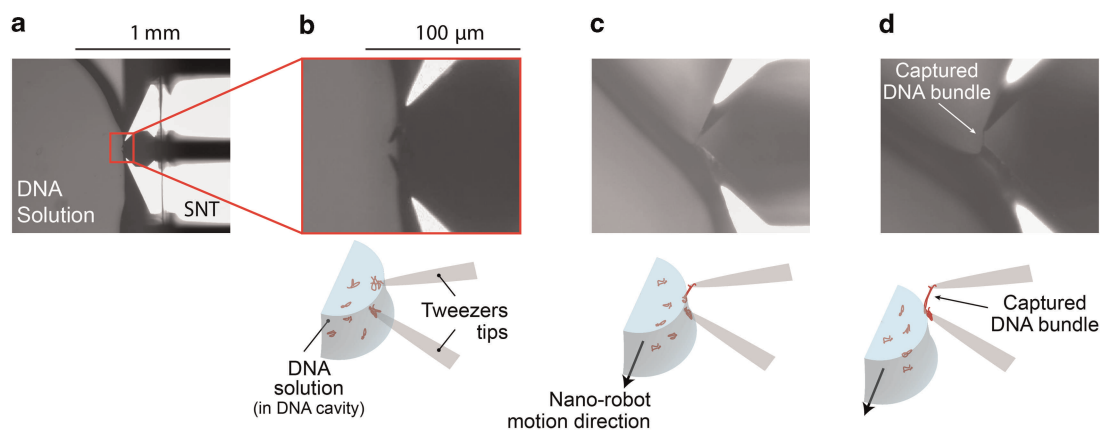


Figure S1 DNA trapping by the SNT (a) Using the nano-robot, the tips of the SNT are inserted approximately 30 μm in a drop (3 μl) of double-stranded λ-DNA (48.5 kbp, 16 μm in length) solution diluted in deionized water. (b) DEP is performed by applying a potential difference (1 MV m⁻¹ at 1 MHz) between the SNT tips. (c) Moving the nano-robot laterally at 20 μm s⁻¹ (for 2 mm) allows consequent removal of the SNT tips out of the DNA solution. (d) When the first tip is out of the solution, the attached DNA molecules are extended due to the receding air-liquid interface.

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