Electronic Supplementary Information (ESI)

Fig. S1 Reaction routes for the preparation of CNT/PUF composite.

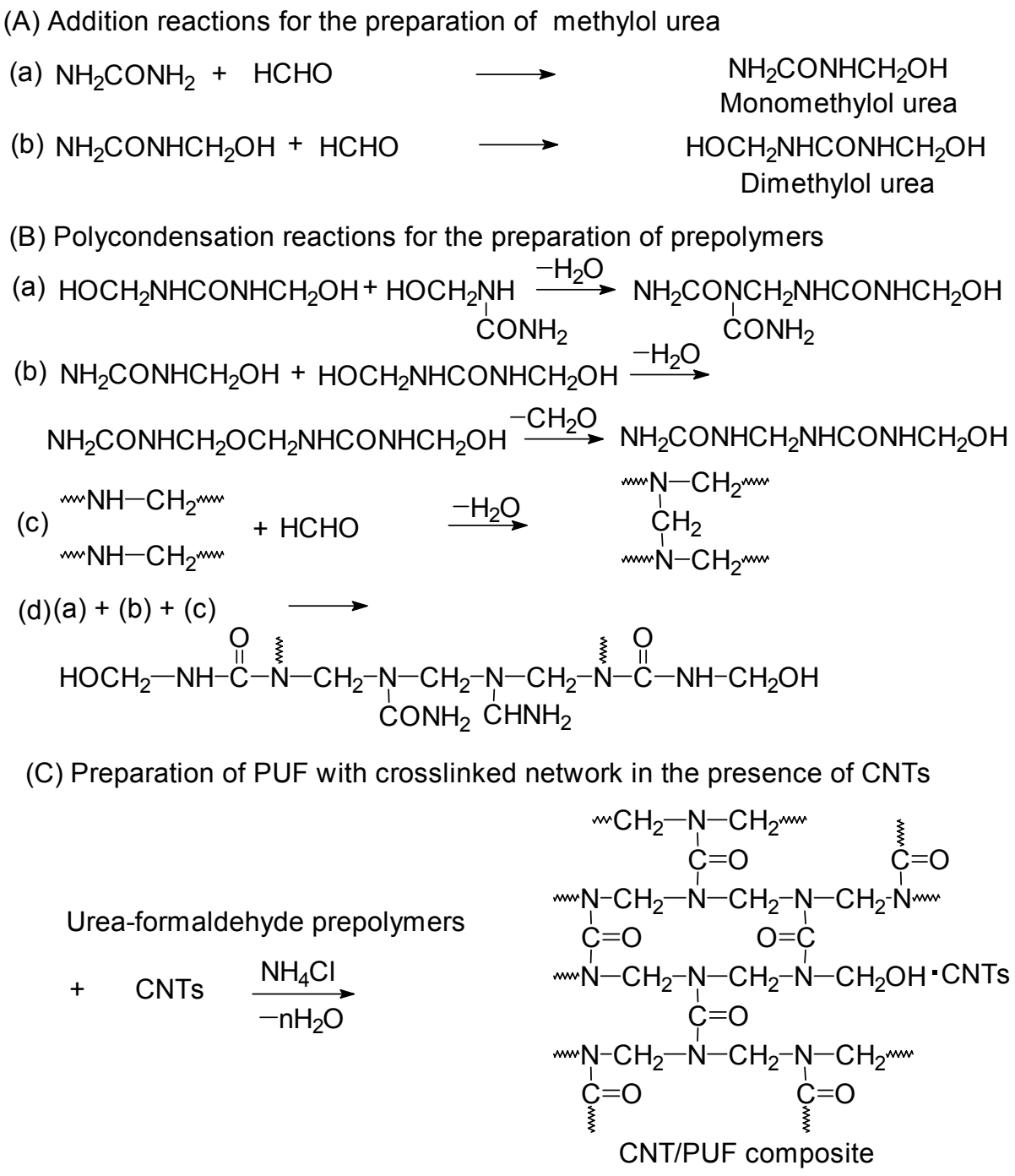

Fig. S2 (a) Photograph of a piece of PUF film and SEM images illustrating the morphology of (b) PUF and (c) CNTs (magnifications, ×20,000).

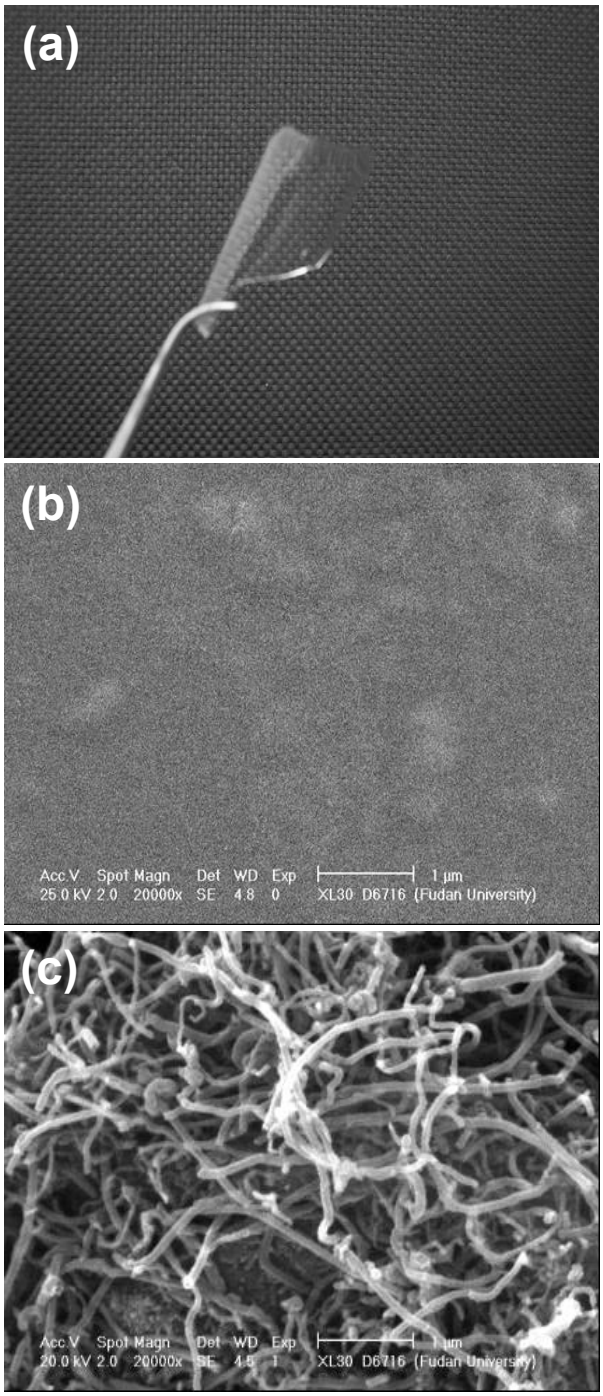

Fig. S3 (A–D) Schematics showing the fabrication process of CNT/PUF or graphite/PUF composite electrodes and (E) the photograph of the prepared electrodes. (A) Inserting a piece of copper wire (b, 10 cm long, 150 μm diameter) into a 3.0 cm long fused-silica capillary (a, 320 μm I.D. × 450 μm O.D.); (B) filling the empty end of (a) with CNT/PUF or graphite/PUF composites (c); (C) curing to form rigid composite (d); (D) applying hot melt adhesive (e) to glue (b) in place.

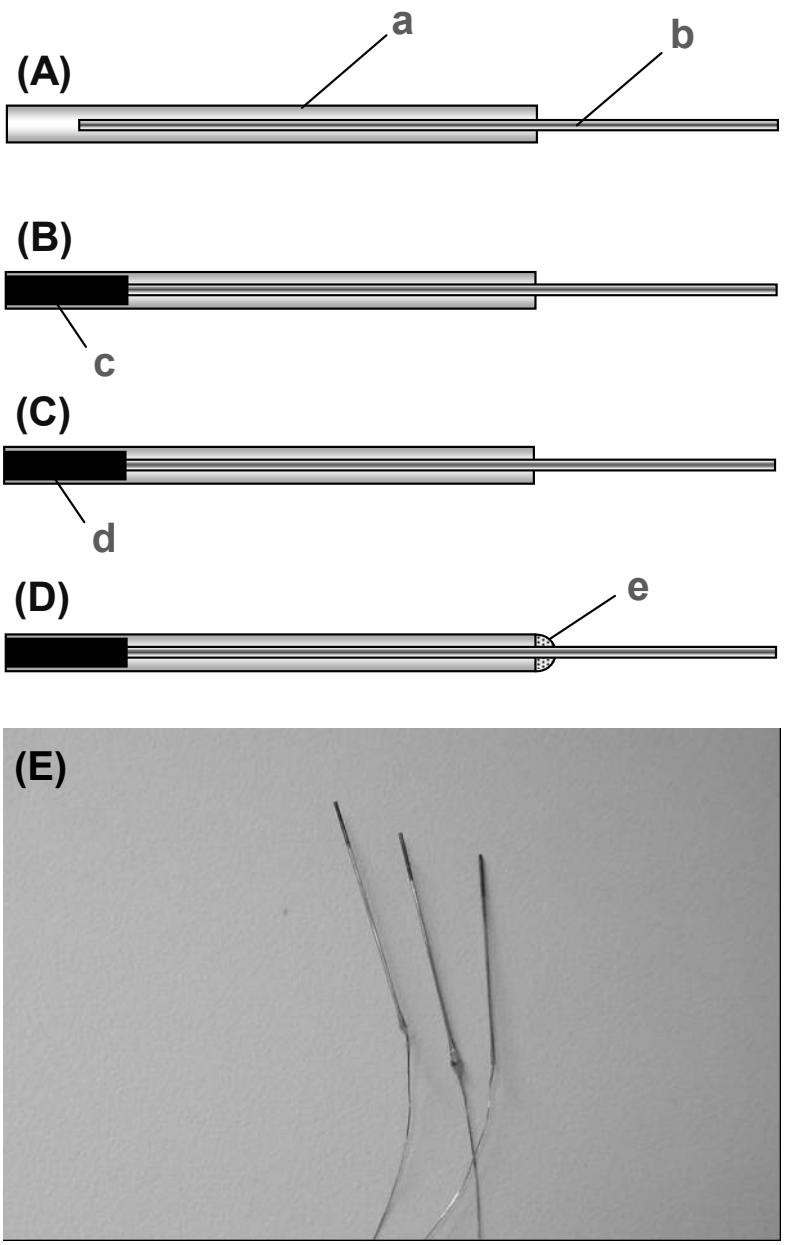

Fig. S4 Schematic of a three-dimensionally adjustable device for the amperometric detection of microchip capillary electrophoresis. (a) Glass microchip, (b) separation channel, (c) injection channel, (d) pipette tip for buffer reservoir, (e) pipette tip for reservoir not used, (f) pipette tip for sample reservoir, (g) Plexiglas holders, (h) buffer reservoir not used, (i) sample reservoir, (j) buffer reservoir, (k) detection reservoir, (l) stainless-steel guiding tube, (m) capillary-based disc detection electrode, (n) silicon rubber holder, (o) auxiliary electrode, (p) reference electrode, (q) high voltage power electrodes, (r) screw bolts, (s) silicon rubber sheet, (t) channel outlet, (u) Plexiglas cover plate, (v) screw nuts.