Electronic Supplementary Material (ESI) for Analytical Methods.

Gold Nanoparticles-Modified Indium Tin Oxide Microelectrode for In-channel Amperometric Detection in Dual-Channel Microchip Capillary Electrophoresis

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Supplement

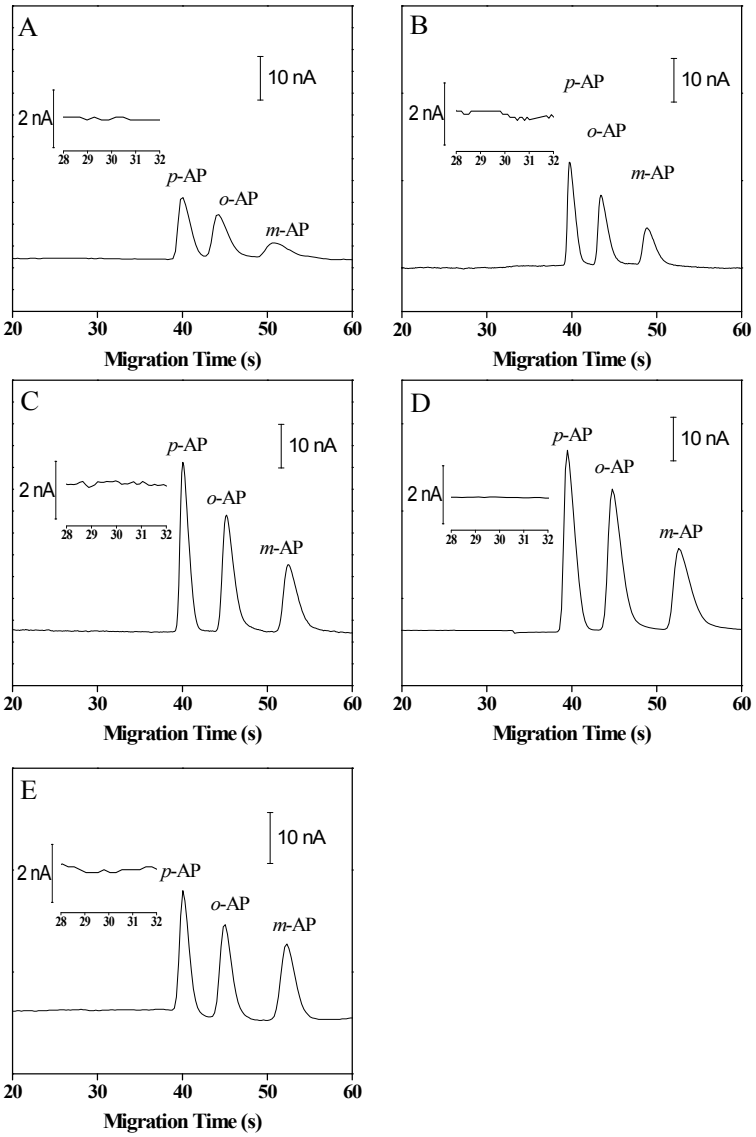

Fig S1. Electropherograms of an equimolar mixture of aminophenols (1 mM) separated in the dual-channel microchip in-channel AD. The GNPs-ITO electrodes deposited at different negative potential (A, -0.045 V; B, -0.245 V; C, -0.445 V; D, -0.645 V, E, -0.845 V). Running buffer, 100 mM acetic acid buffer with a pH of 4; CE potential, 250 V/cm; injection time, 1 s; E = 0.7 V.

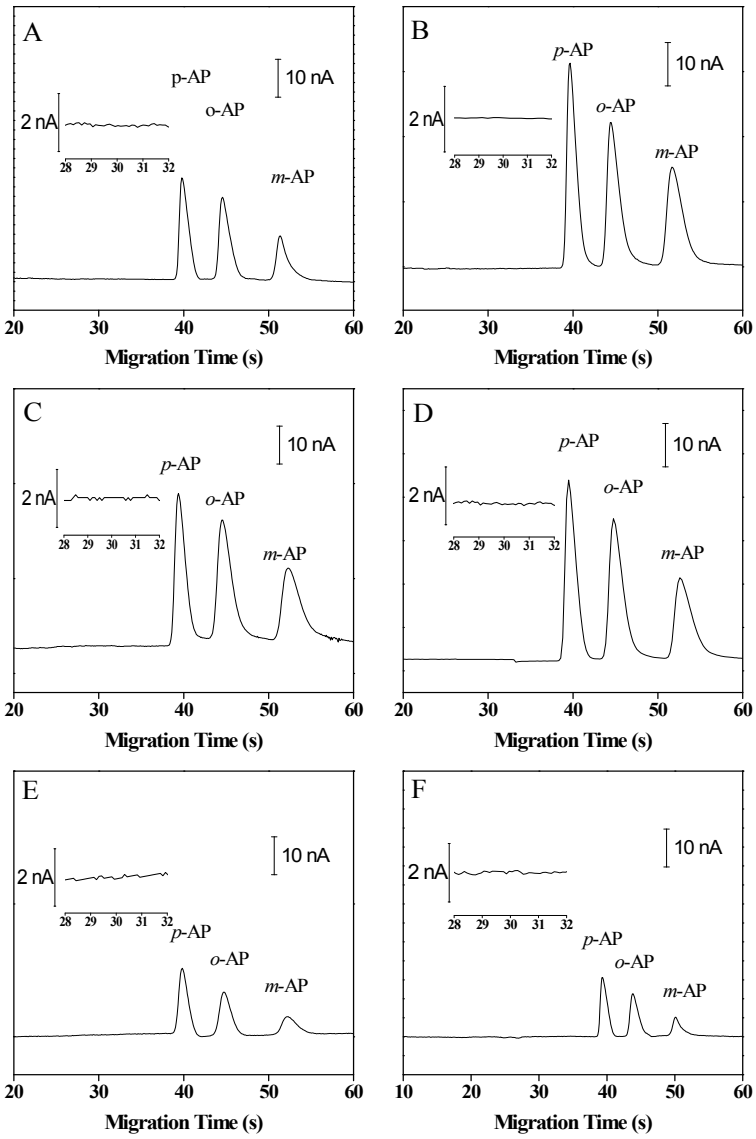

Fig S2. Electropherograms of an equimolar mixture of aminophenols (1 mM) separated in the dual-channel microchip in-channel AD. The GNPs-ITO electrodes deposited with different deposition cycles (A, 5; B, 10; C, 15; D, 20; E, 30; F, 40). Separation and detection conditions are same as in Fig. S1.

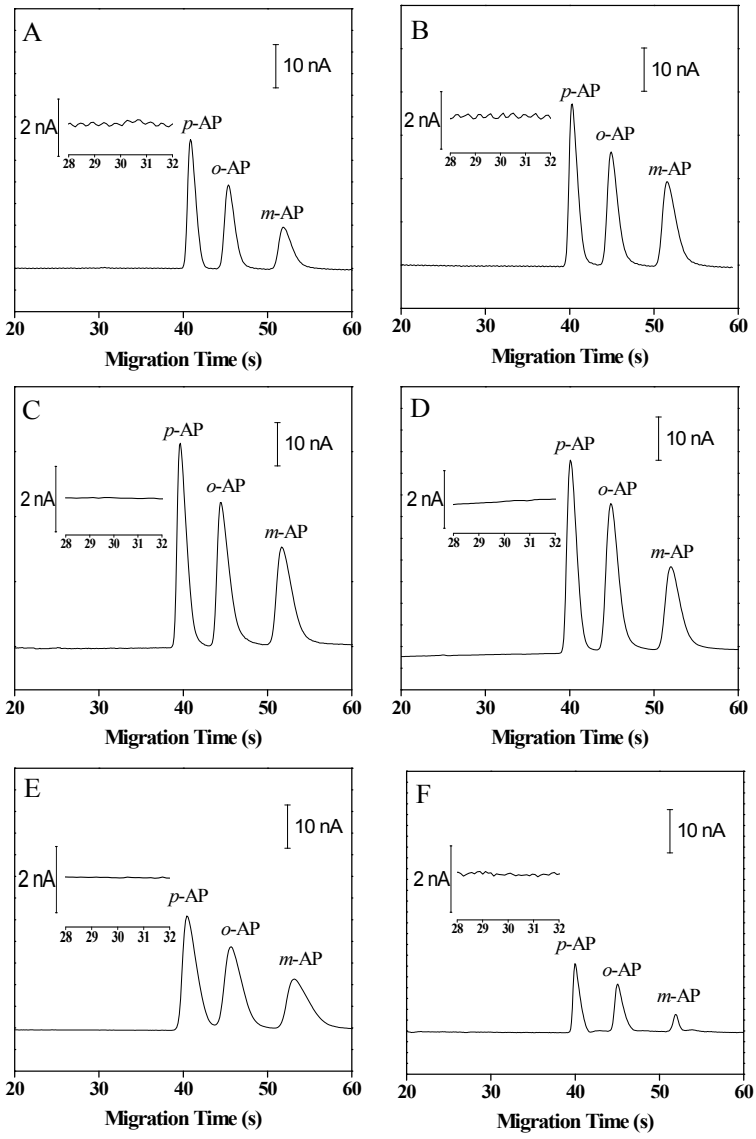

Fig S3. Electropherograms of an equimolar mixture of aminophenols (1 mM) separated in the dual-channel microchip in-channel AD. The GNPs-ITO electrodes deposited at different deposition scan rate (A, 25 mV/s; B, 50 mV/s; C, 100 mV/s; D, 150 mV/s; E, 200 mV/s; F, 250 mV/s). Separation and detection conditions are same as in Fig. S1.

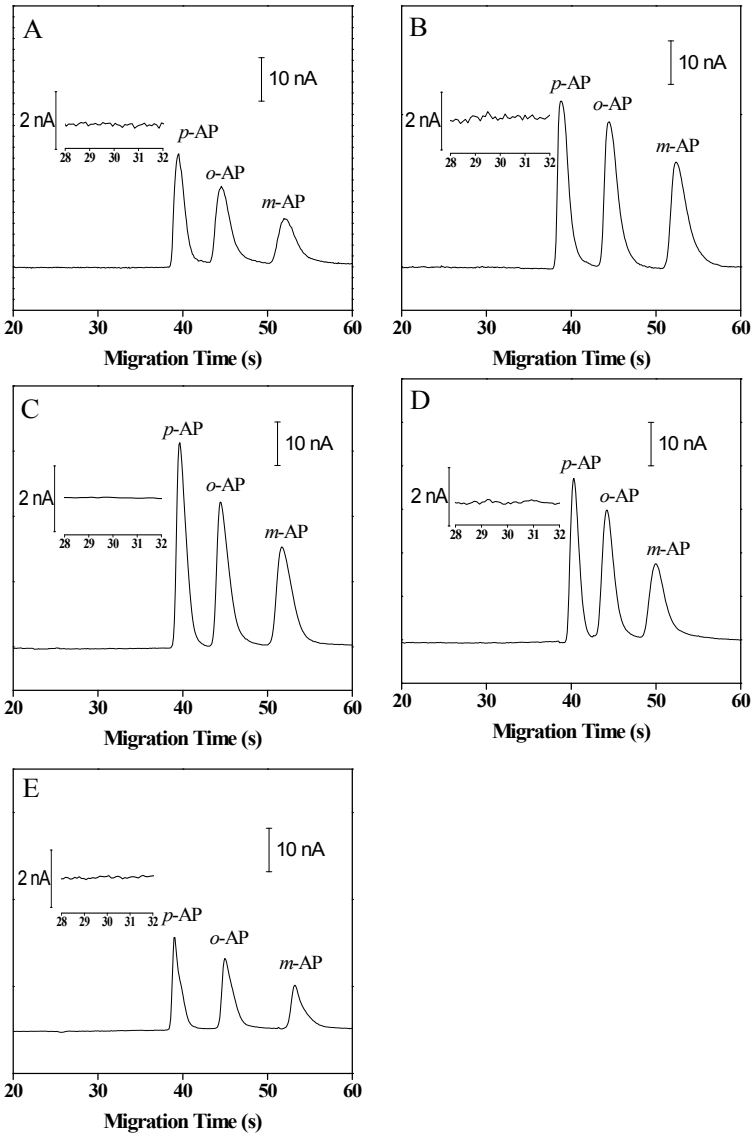

Fig S4. Electropherograms of an equimolar mixture of aminophenols (1 mM) separated in the dual-channel microchip in-channel AD. The GNPs-ITO electrodes deposited in different concentration of chloroauric acid (A, 0.5 M; B, 0.8 M; C, 1 M; D, 1.2 M, E, 1.5 M). Separation and detection conditions are same as in Fig. S1.