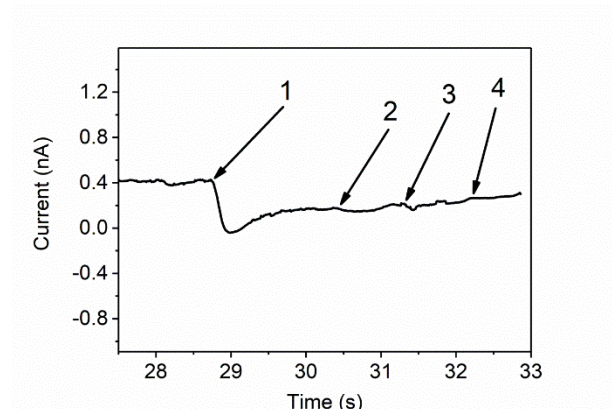


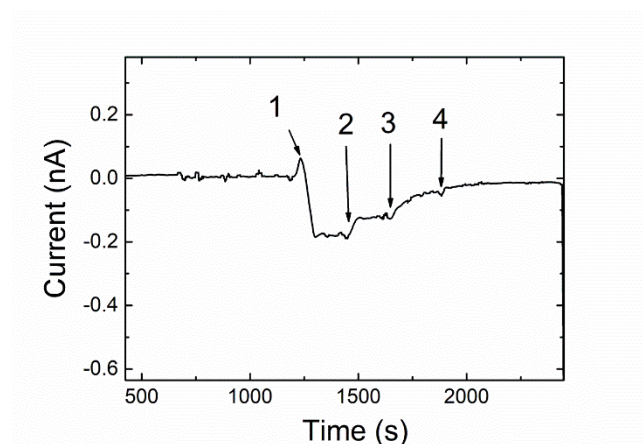
## Supporting Information

### Video S1

Video of the DENA processes of a Pd-Au nanodendrite electrode from a water solution of  $5 \times 10^{-3}$  M  $K_2PdCl_4$  and  $5 \times 10^{-3}$  M  $HAuCl_4$  (Leica optical microscope).



**Figure S1** | Response of an Au NW sensor to 1 - 0.01 M glucose and in the presence of 2 -  $10^{-3}$  M sucrose, 3 -  $10^{-3}$  M fructose, and 4 -  $10^{-4}$  M ascorbic acid.



**Figure S2** | Response of a Pd-Au NW sensor to 1 -  $1 \mu\text{M}$   $H_2O_2$  and in the presence of 2 -  $10^{-3}$  M dopamine, 3 -  $0.5 \times 10^{-3}$  M uric acid, and 4 -  $0.15 \times 10^{-3}$  M ascorbic acid.