

Supplementary Material for Electrohydrodynamic Deposition of Polymeric Droplets under Low-Frequency Pulsation

Figures S1 summarize deposition frequency of droplets under 6 different conditions by varying PEO concentrations (either 1% or 5% PEO) and flow supply rates (11, 22, and 33 nl/s) under a fixed applied voltage of 2250 volts and 50% duty cycle ratio. Together with the applied frequency variations (from 5 to 100Hz), a total of 90 points have been collected with calculated standard deviations, σ_{freq} , from more than 50 deposited droplets. Figure S2 shows the histogram of all 90 data points of deposition frequencies.

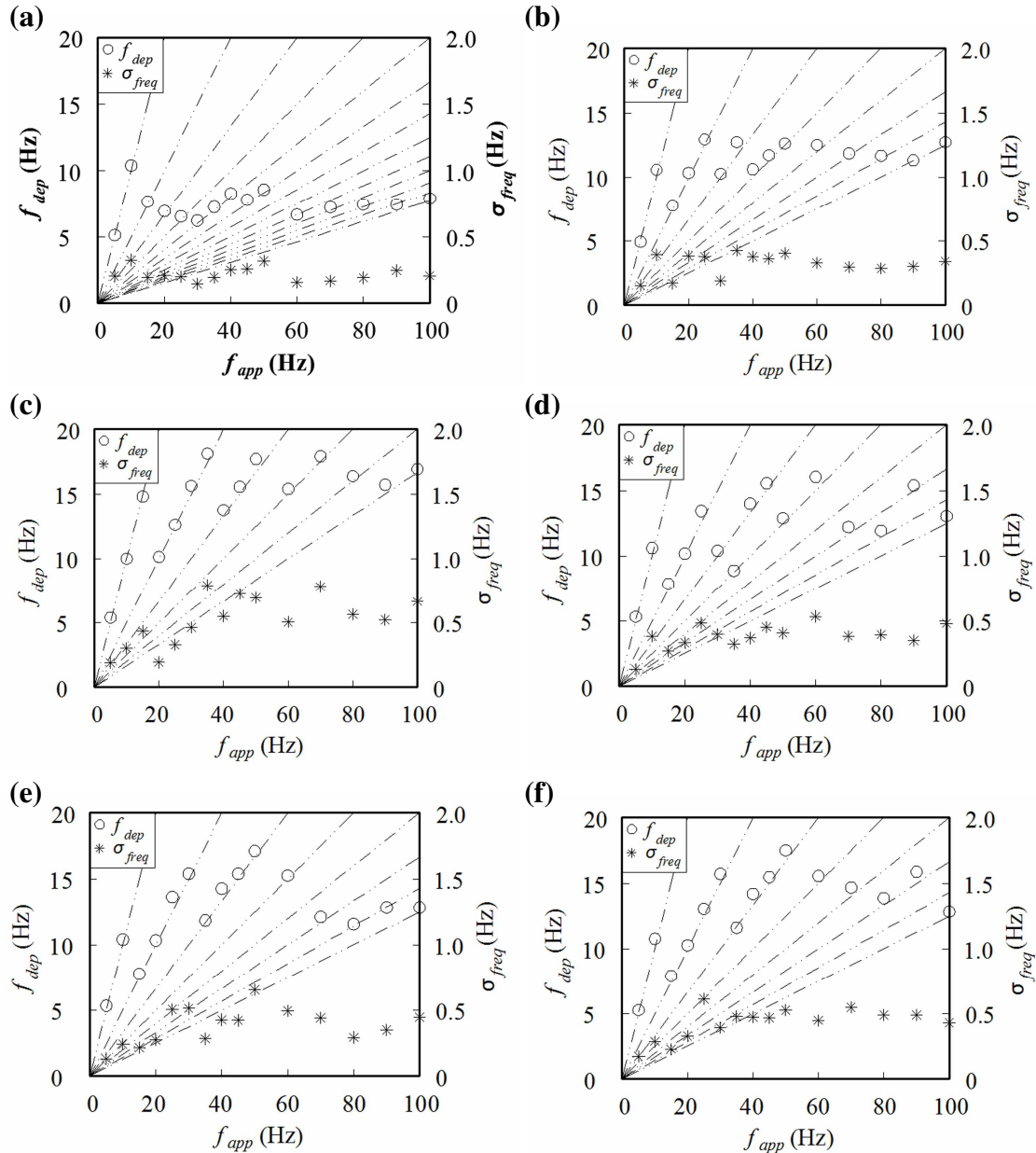
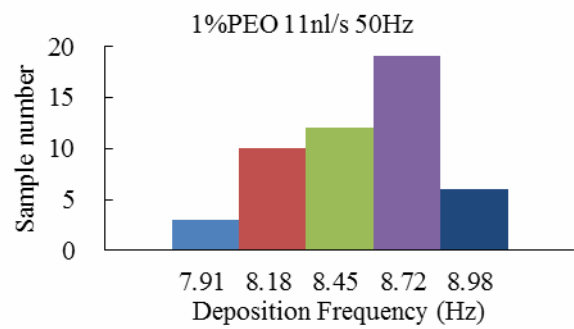
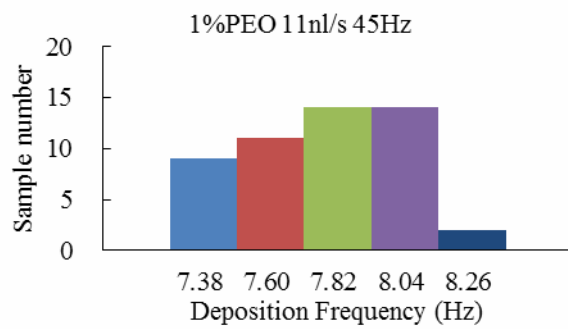
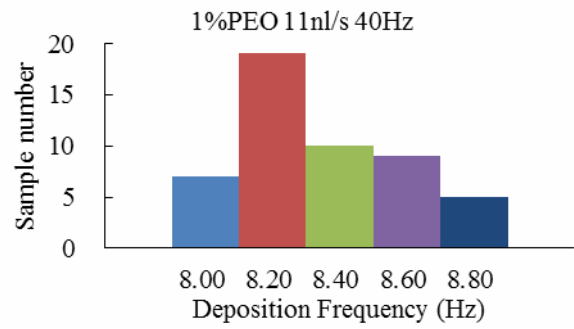
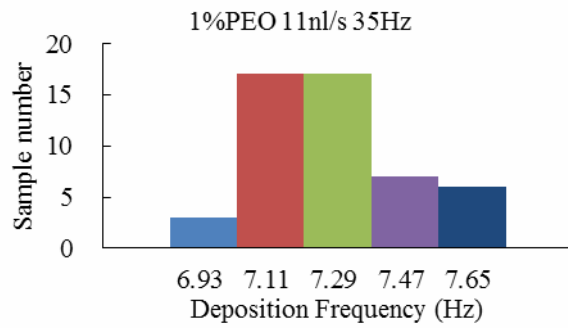
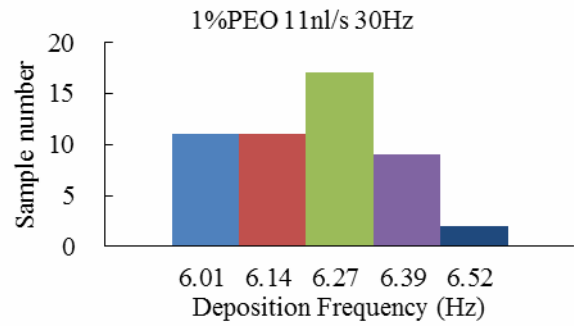
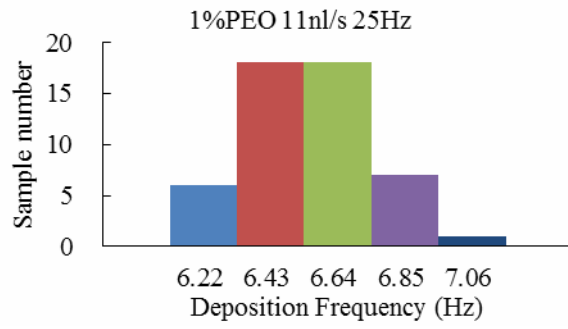
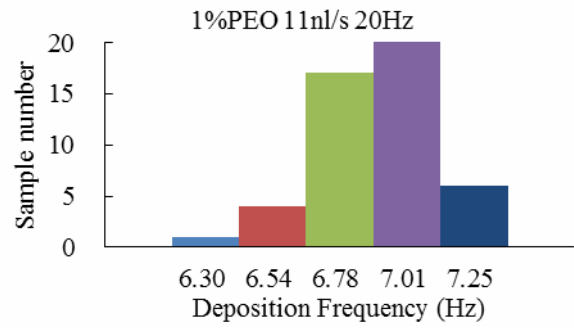
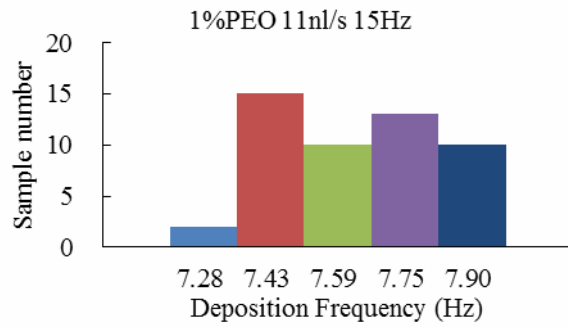
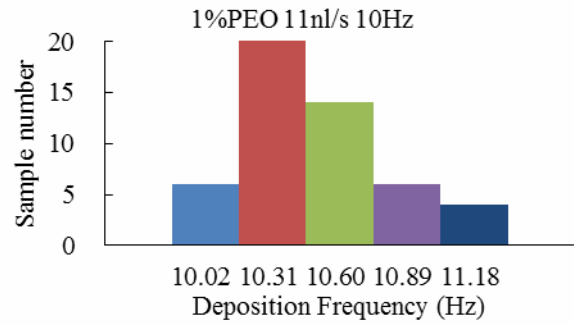
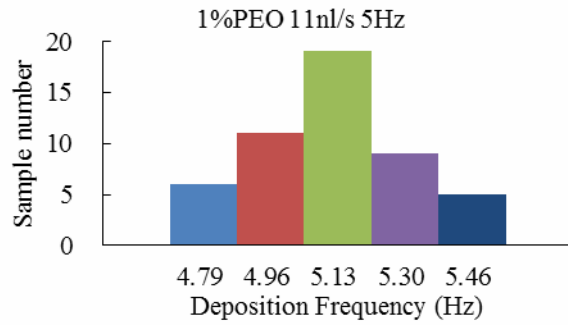
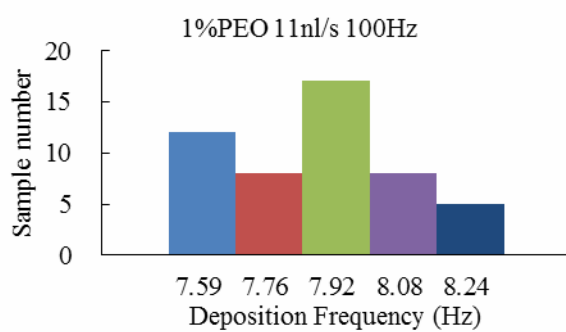
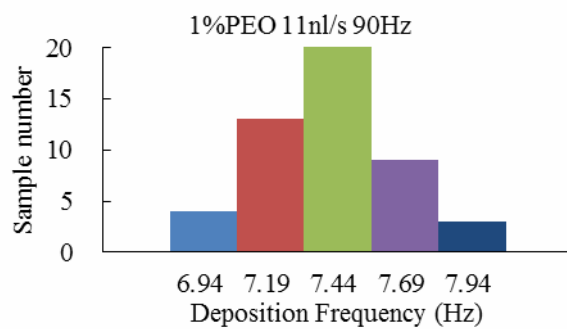
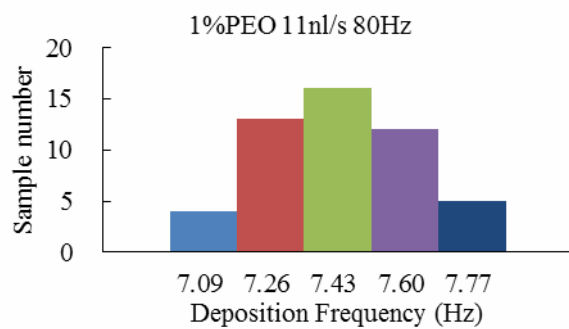
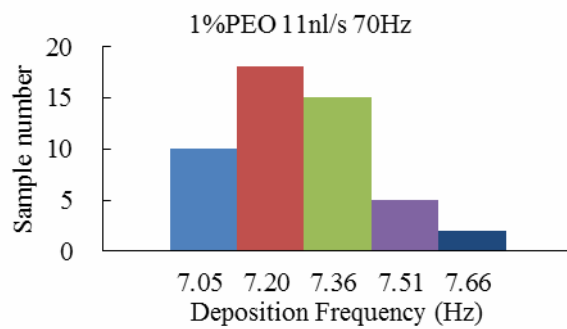
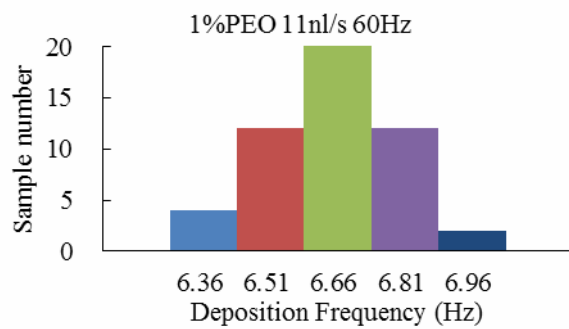


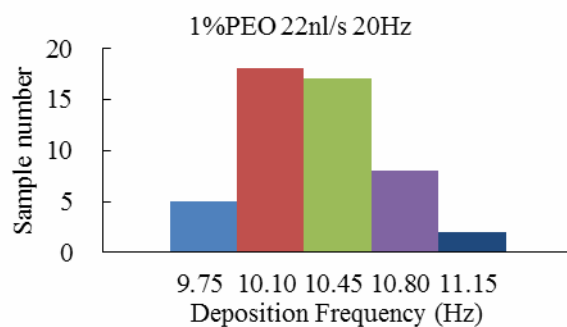
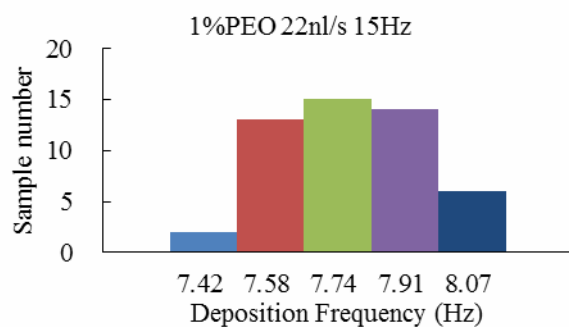
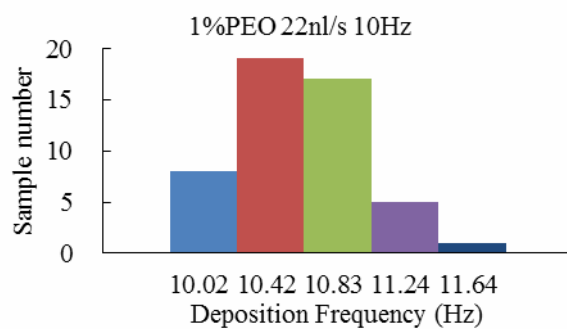
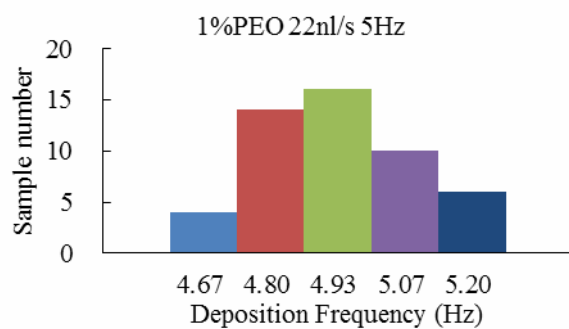
Figure S1. The median value and standard deviation of the droplet deposition frequency with respect to various applied voltage frequency. Each data point is calculated from more than 50 deposited droplets. (a) 1% PEO at solution supply rate of 11 nl/s; (b) 1% PEO at solution supply rate of 22 nl/s; (c) 1% PEO at solution supply rate of 33 nl/s; (d) 5% PEO solution at solution supply rate of 11 nl/s; (e) 5% PEO solution at solution supply rate of 22 nl/s; and (f) 5% PEO solution at solution supply rate of 33 nl/s.

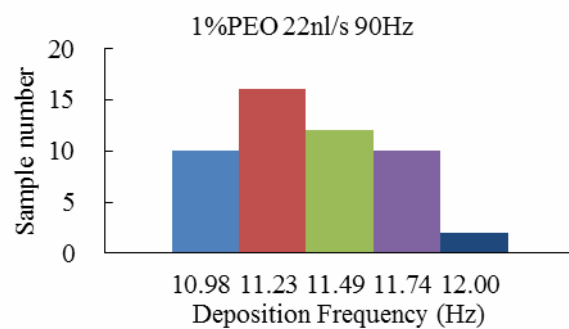
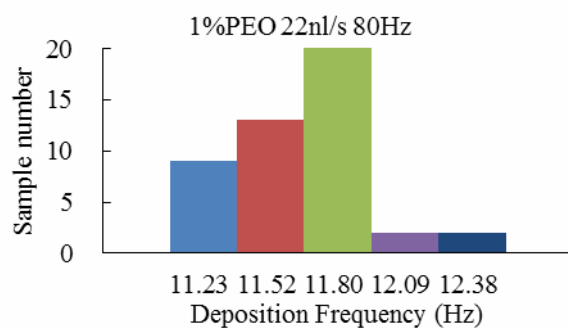
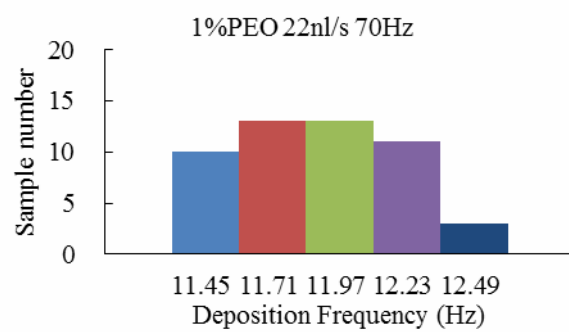
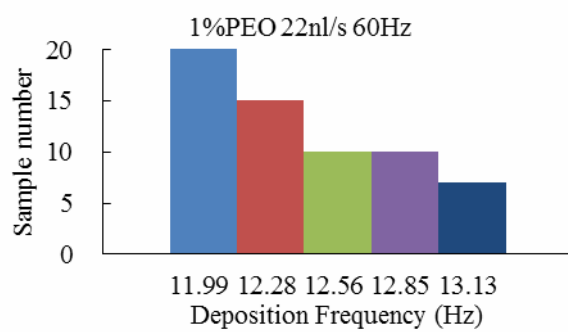
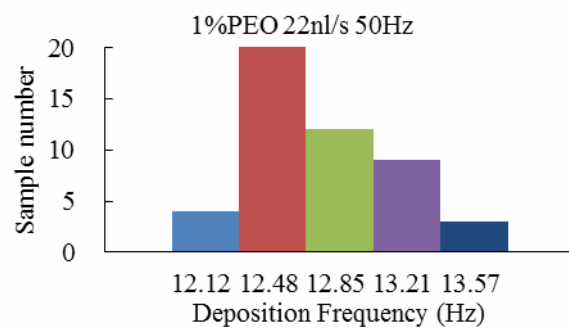
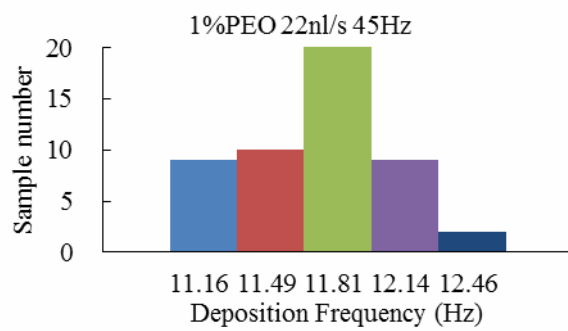
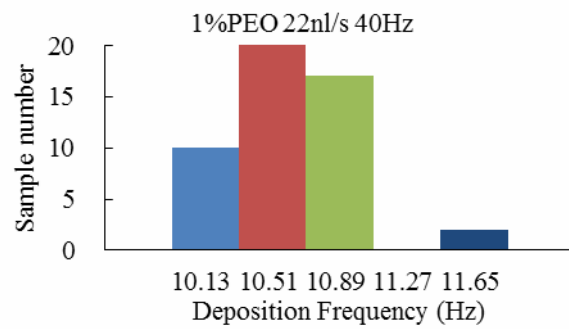
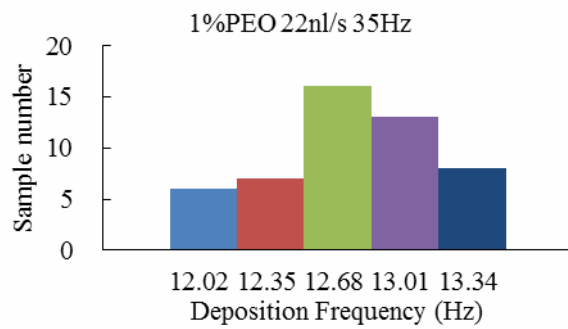
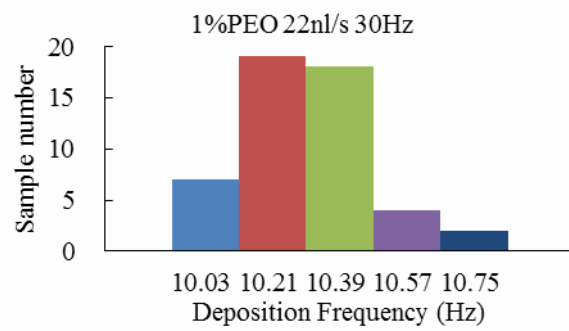
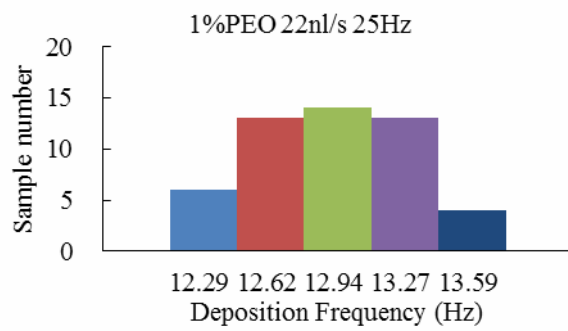
(a)

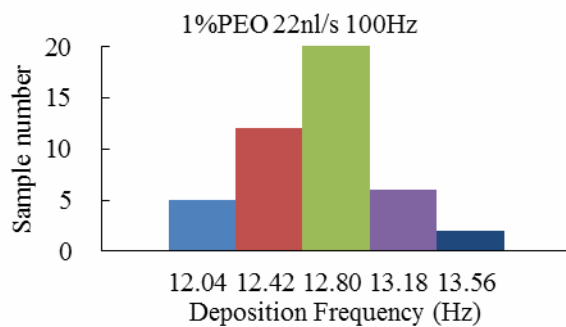




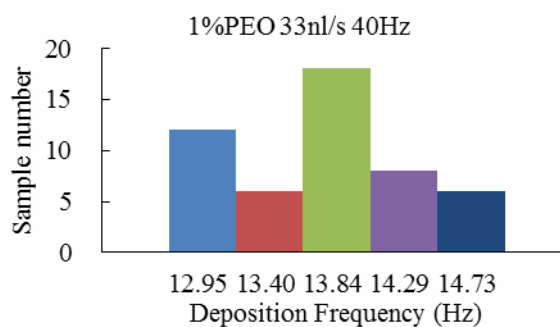
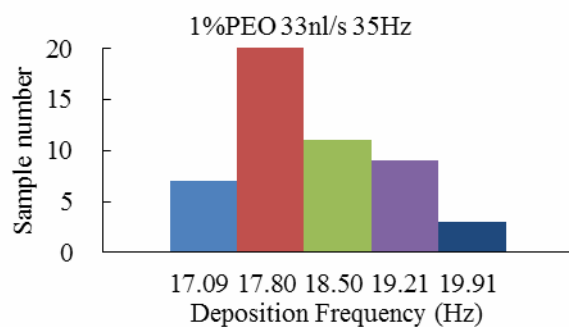
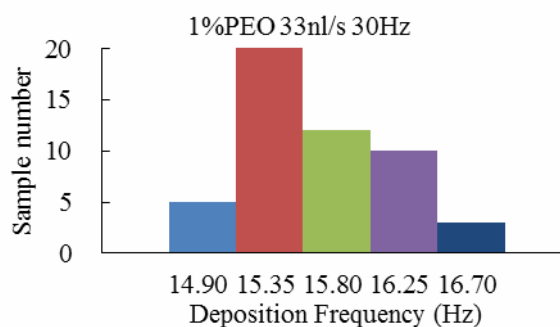
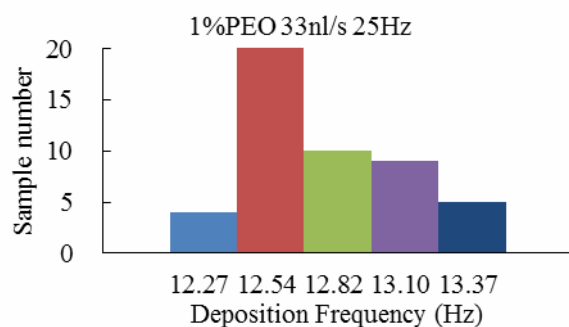
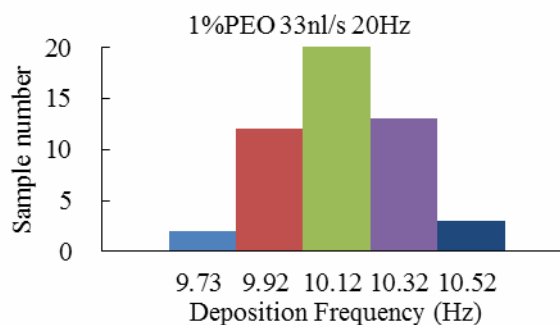
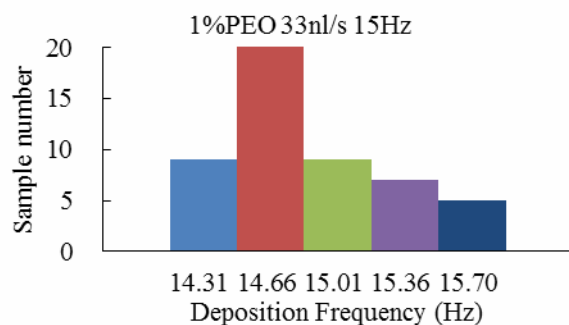
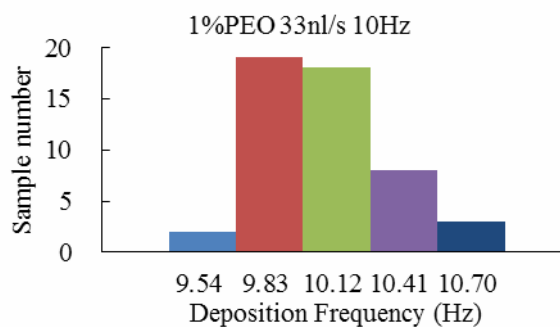
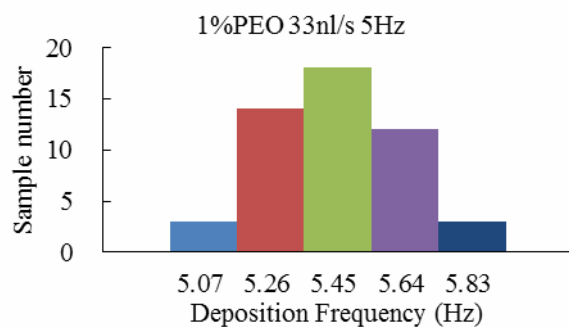
(b)

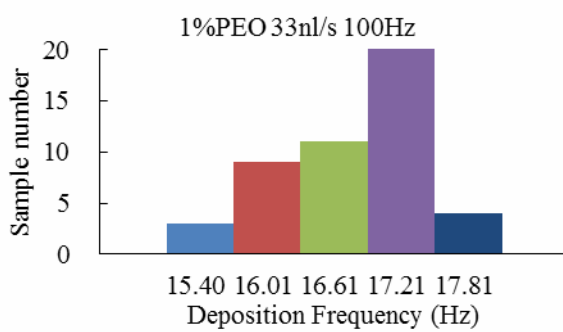
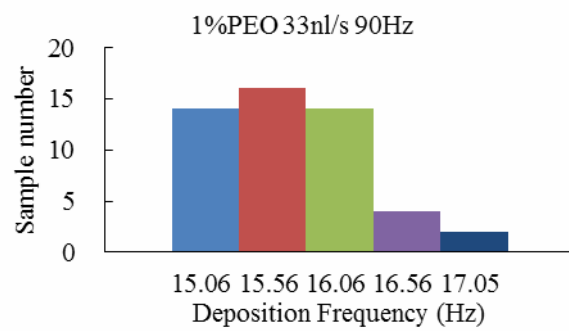
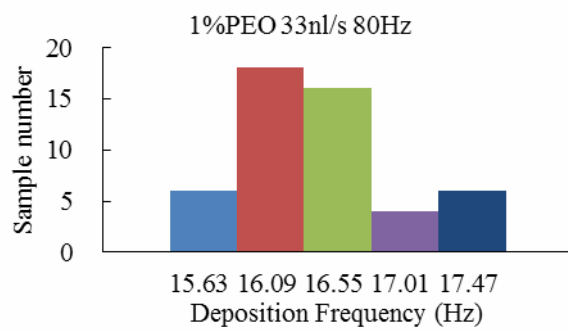
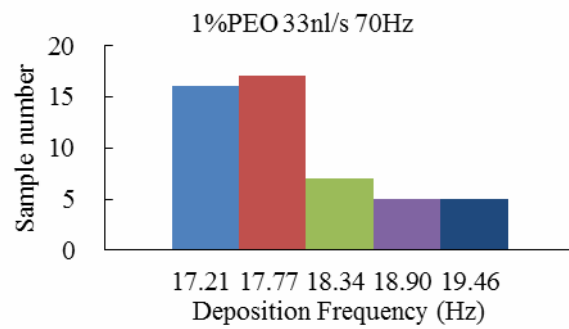
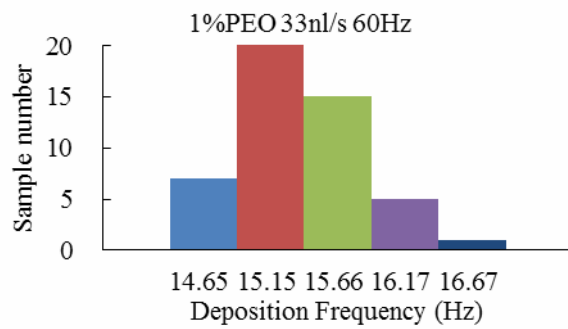
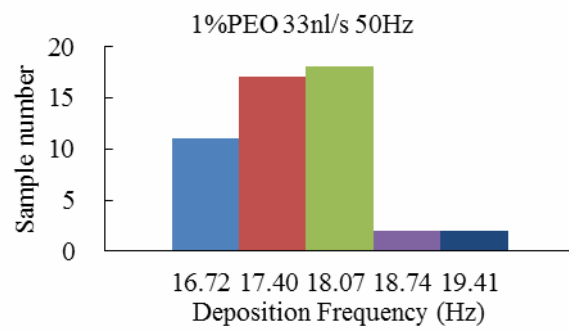
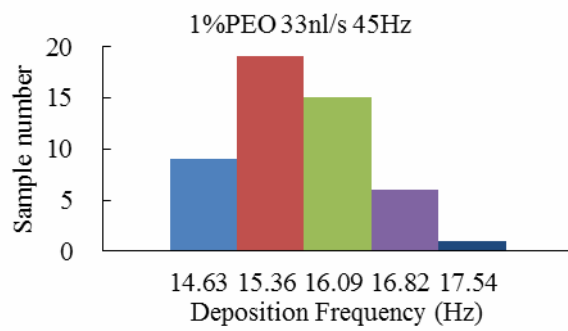




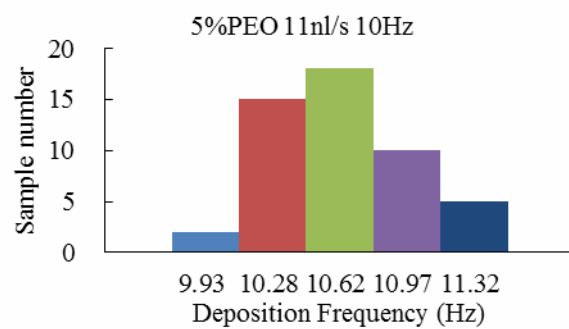
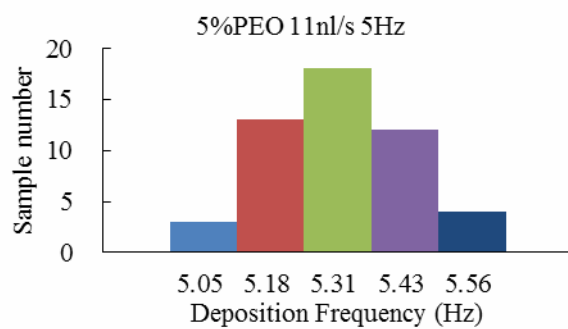


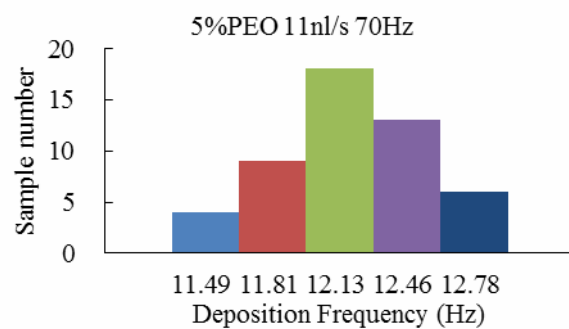
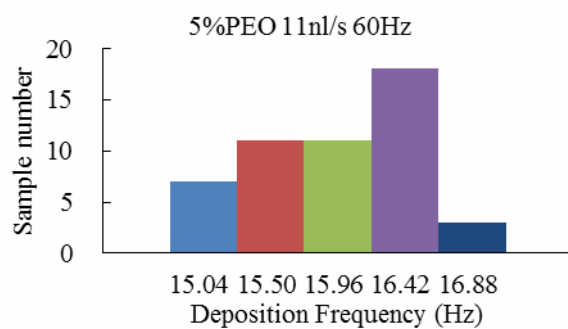
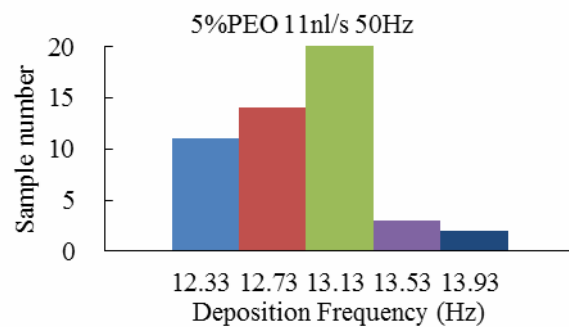
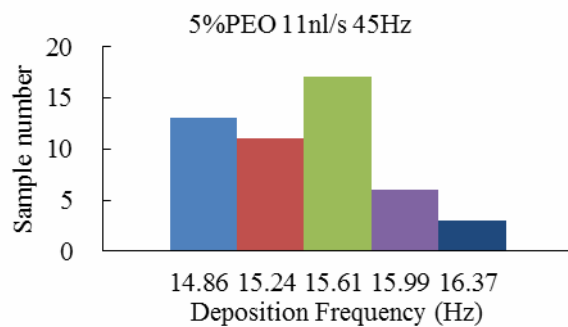
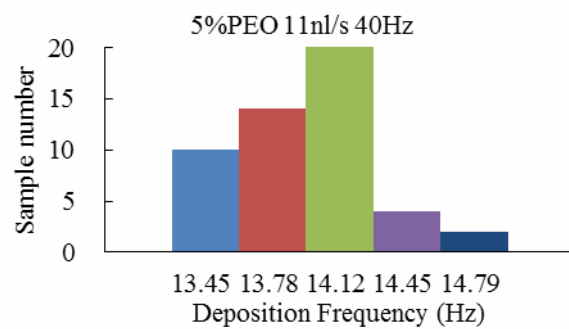
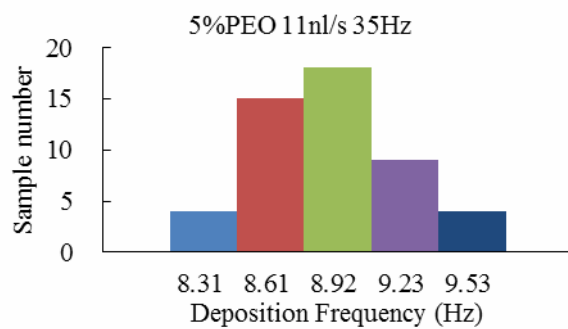
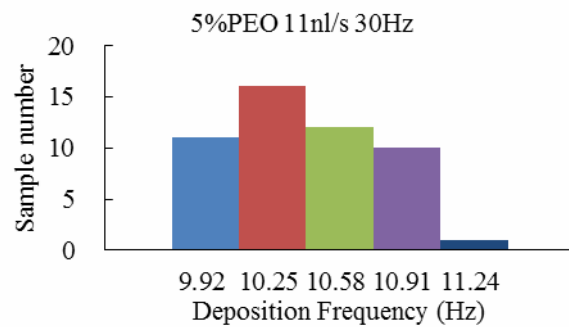
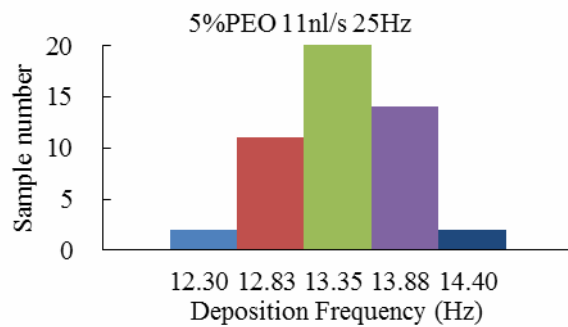
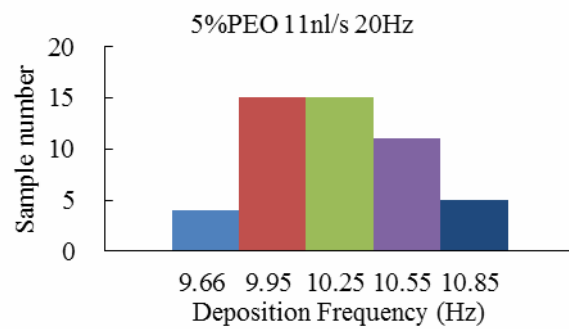
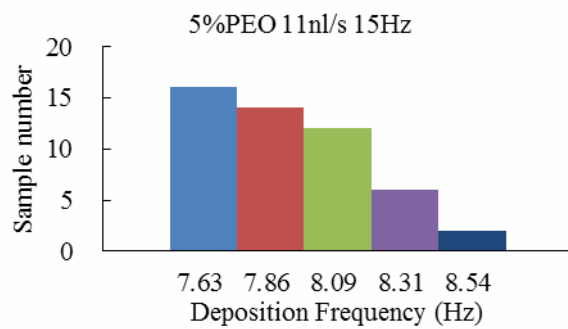
(c)

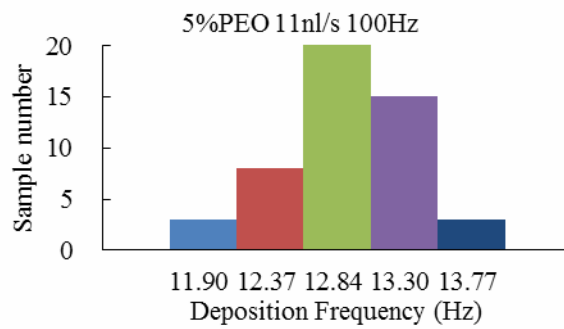
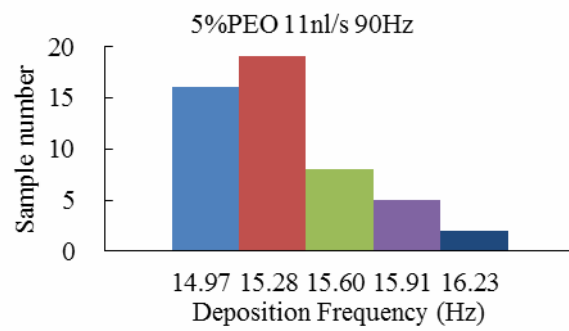
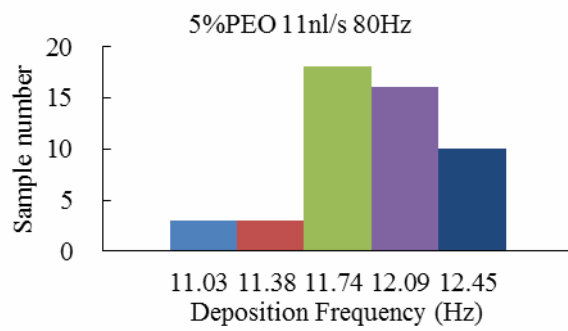




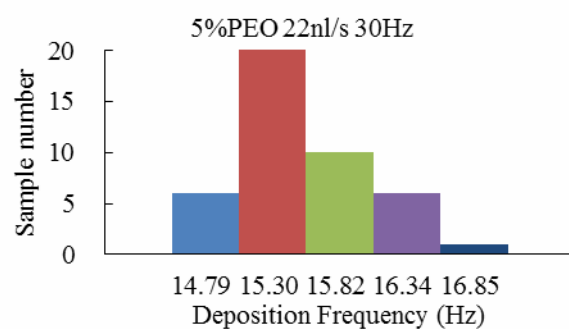
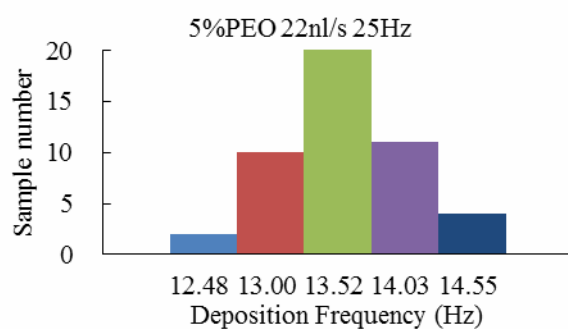
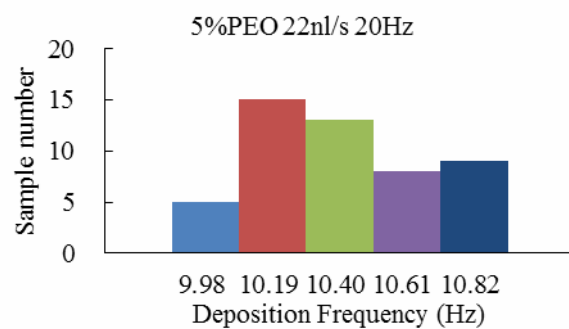
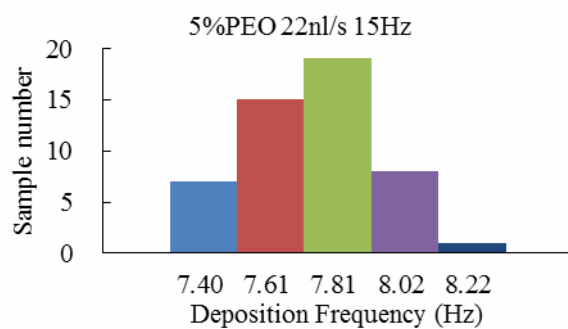
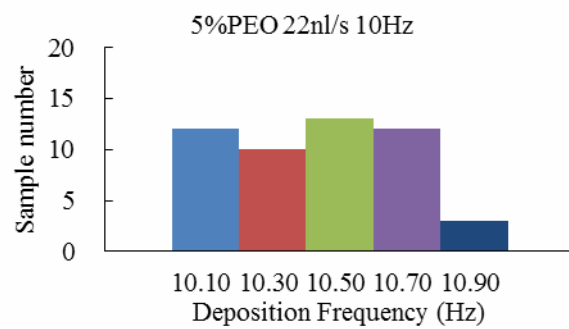
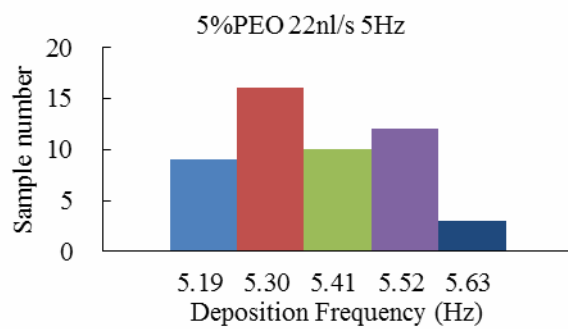
(d)

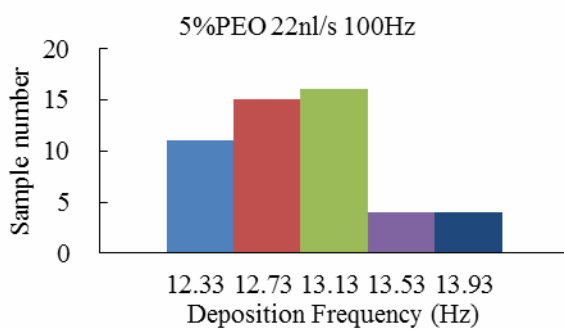
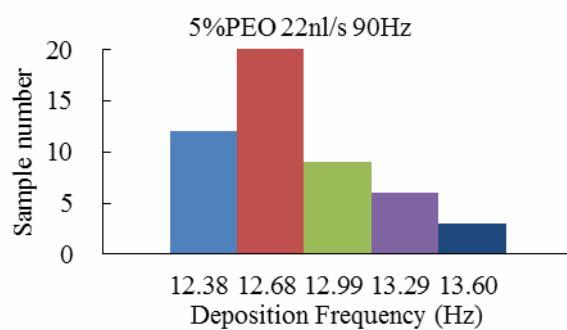
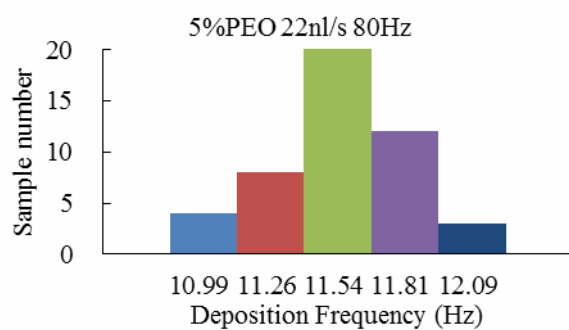
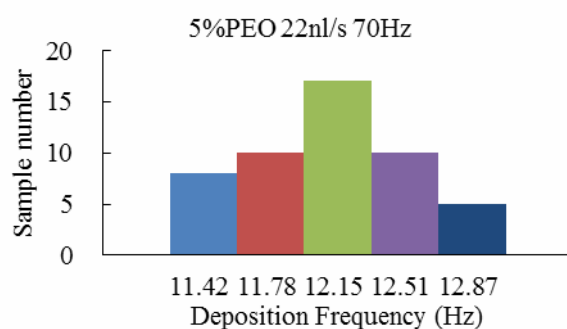
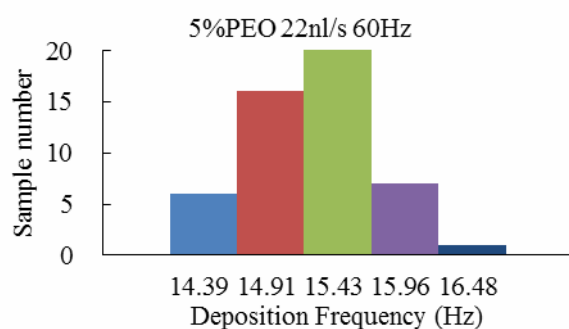
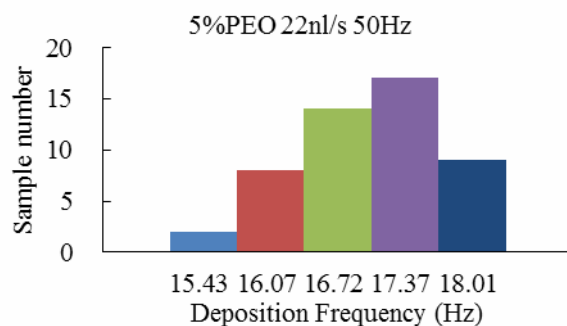
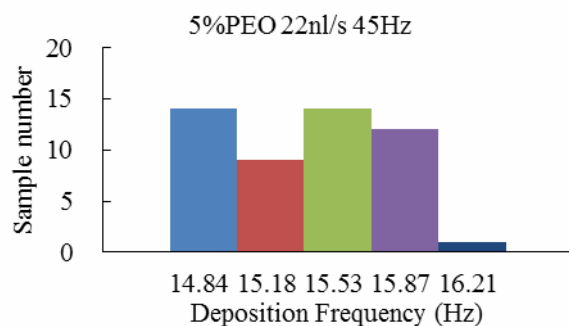
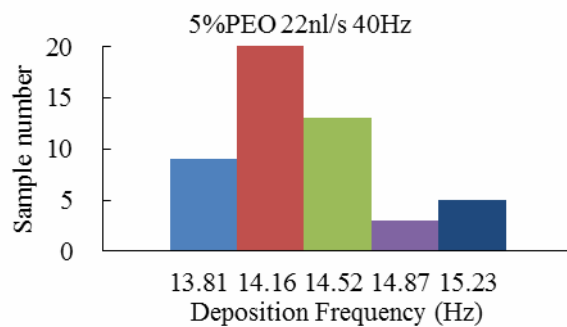
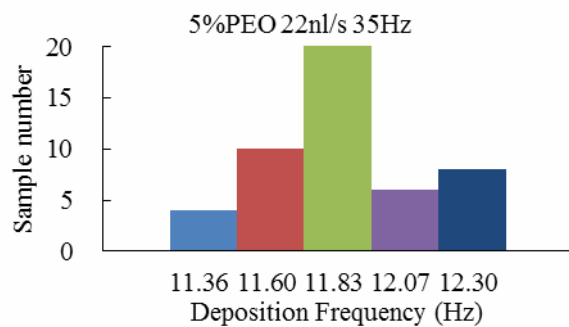




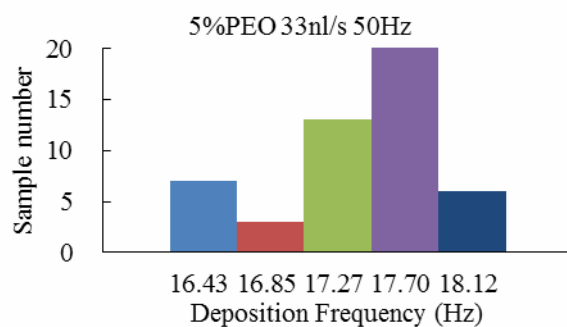
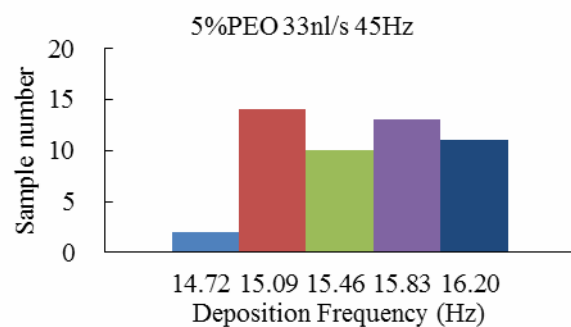
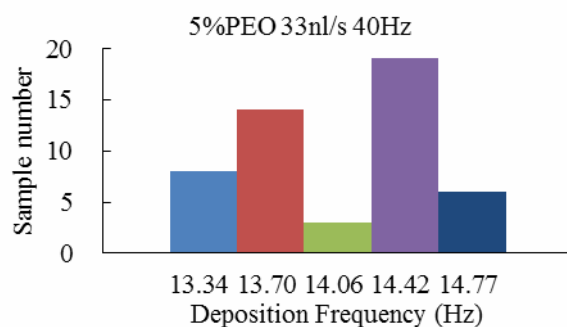
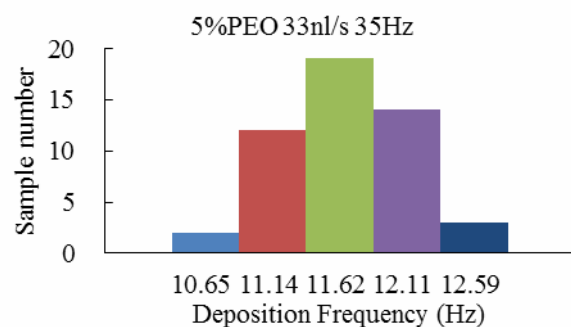
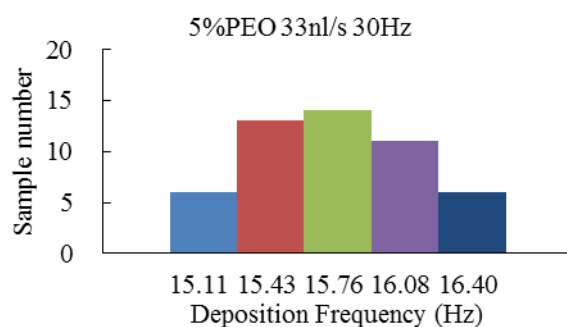
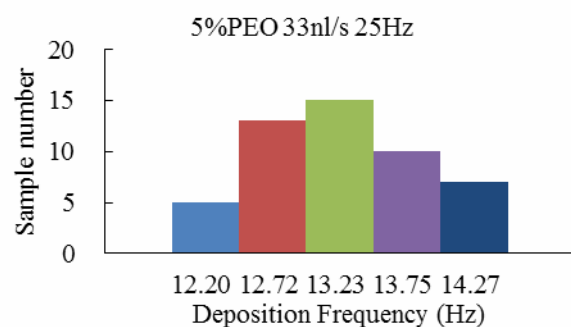
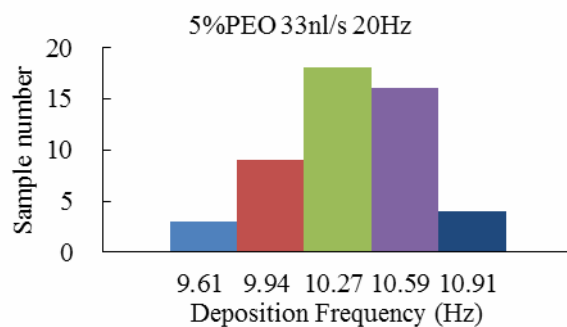
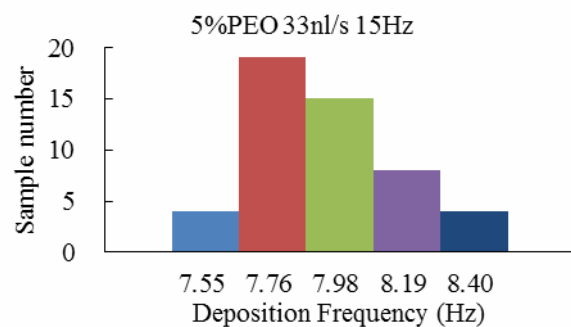
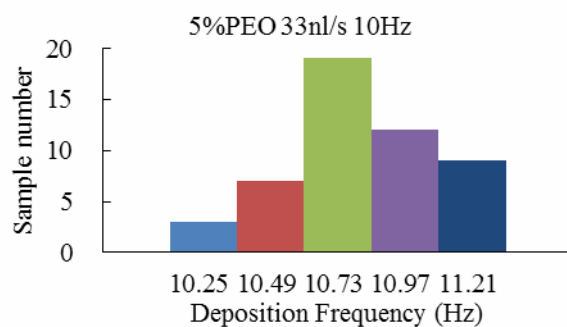
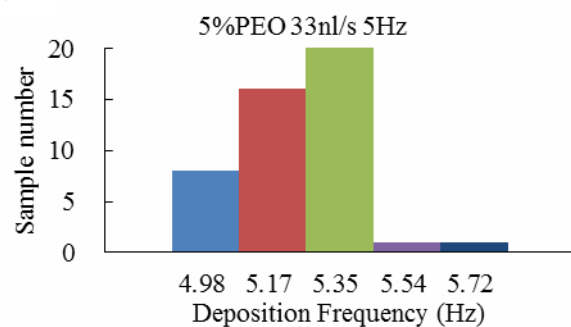


(e)





(f)



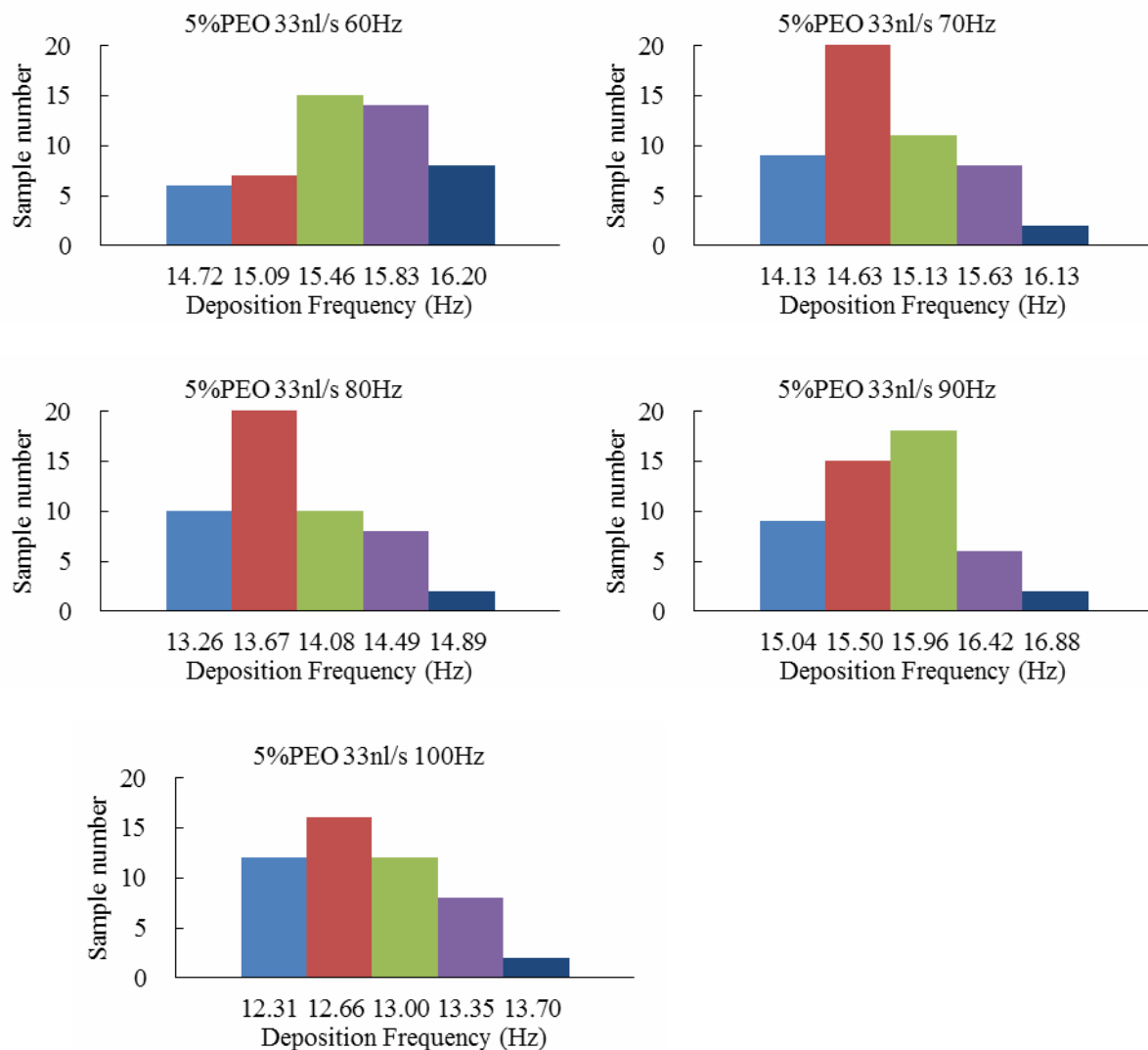


Figure S2. Histograms of the deposition frequency distributions with respect to various applied voltage frequencies and testing conditions: (a) 1% PEO solution at solution supply rate of 11 nl/s; (b) 1% PEO solution at solution supply rate of 22 nl/s; (c) 1% PEO solution at solution supply rate of 33 nl/s; (d) 5% PEO solution at solution supply rate of 11 nl/s; (e) 5% PEO solution at solution supply rate of 22 nl/s; and (f) 5% PEO solution at solution supply rate of 33 nl/s.