

## Electronic Supplementary Information

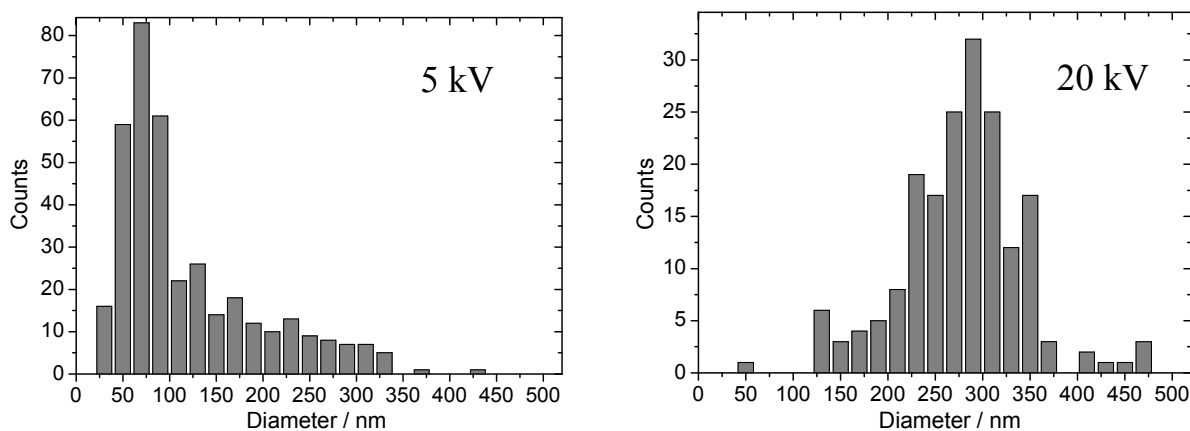
### Formation of Au nanoparticles in ionic liquid by electron beam irradiation

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**Fig. S1** Size distribution of Au nanoparticles on FTO substrate formed by electron beam irradiation for 10 min. The acceleration energy for electron beam is 5kV (left) and 20 kV (right), respectively. The beam current was  $1 \times 10^{-8}$  A in both cases.