Supporting Information

Numerical insights into the early stages of nanoscale electrodeposition: nanocluster surface diffusion and aggregative growth†

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S1. Influence of the threshold size for defining a cluster on the early stages of cluster formation and aggregation

Figure S1 shows the evolution of the number and density of clusters as a function of time when all the clusters of $R \geq 1$ nm (a) or of $R \geq 2$ nm (b) are taken into account, for different values of $F$ and $\alpha$.

Figure S1. Evolution with time of the number of clusters and cluster density with $\alpha = 1$ for different values of $F$ (top) and with $F = 1$ and different values of $\alpha$ (bottom). All clusters with of $R \geq 1$ nm are considered in (a) and (c) and all clusters with of $R \geq 2$ nm (b) and (d).
S2. Influence of the relative surface mobility on the cluster size distributions

Figure S2 shows the histograms of the size distributions of all the individual particles as a function of time, for $F = 1$ and $\alpha = 1$. Increasing the deposition time results in a larger dispersion of the particle sizes and in a decrease of the number of adatoms and small adatom aggregates.

![Histograms](image)

Figure S2. Size distribution histogram for $\alpha = 1$ and $F = 1$ after 1ms (a), 3ms (b) and 10ms (c).