Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supplementary Information: "Room-temperature diffusion of metal clusters on graphene"

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We observe that the slopes of log-log $\bar{\delta}^2(\tau)$ vs. τ curves in Fig. 2 in the main text are not constant. Hence, in order to extract α, we perform a linear fit of the curves for multiple time intervals $[0{:}\tau^*]$ with $0 < \tau^* \leq 50$ ps according to the methodology presented in ref [S1]. Fig. S1 shows the probability distribution histograms of the slope α of the $\bar{\delta}^2(\tau)$ vs. τ curves in Fig. 2. The distributions are described by fitting a gamma function (solid lines) from which the most probable value of α and range are extracted (provided in each panel).

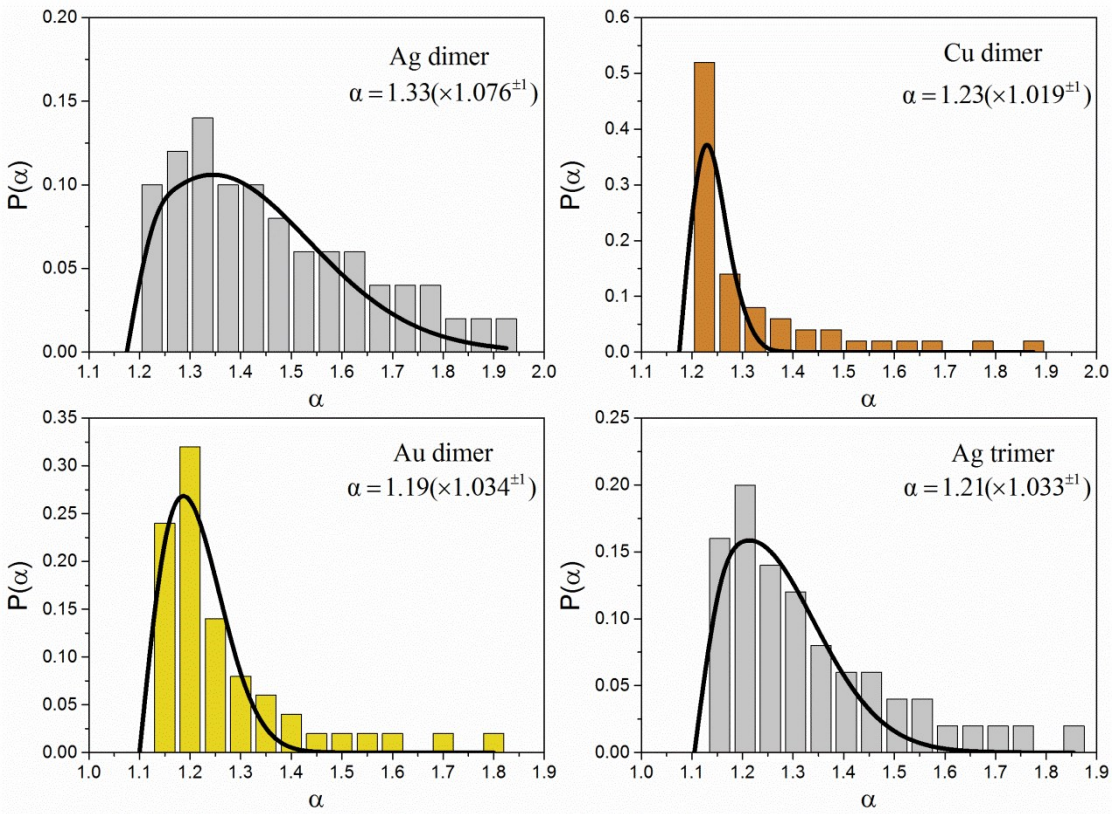

Fig S1. Histograms representing the statistical distributions of $\bar{\delta}^2(\tau)$ vs. τ slopes α (Fig.2) as computed from trajectories presented in Fig.1 in the main article. The distributions are described by fitting a gamma function to the data from which the most probable value of α and range are extracted.

References

S1 E. Kepten, A. Weron, G. Sikora, K. Burnecki and Y. Garini, Guidelines for the Fitting of Anomalous Diffusion Mean Square Displacement Graphs from Single Particle Tracking Experiments, *PLoS One*, 2015, **10**, 1–10.