Fig. S3 the data of $-\ln(I/I_0)$ vs NO flows for the active clusters in the reactions between Au\textsubscript{$n^-$} ($n = 1$-20) and NO at 150K (shown in Fig S1). The linear fitting of each set of data was carried out according to the equation $-\ln(I/I_0) = k[NO]t$. The slopes from these fitting processes corresponded to the $kt$. Since the reaction time $t$ is identical for all Au\textsubscript{$n^-$} in one measurement, the slopes were in proportional to the relative kinetic rates $k$ in the initial reaction steps of Au\textsubscript{$n^-$}. 

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