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Statistical analysis of dimer formation in supersaturated metal vapor based on molecular dynamics simulation

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Highlights

- Two ways with compatible probabilities for long-lived diatomic complex formation are proposed.
- Energy distribution function of copper diatomic complexes has two peaks separated by gap.
- The simple diatomic collision could give long-lived diatomic complex.
- Triatomic collisions resulted in long-lived diatomic complex appearing with high probability.
- For condensation process copper diatomic complex can be a critical nucleus.