Molecular Dynamics Simulation Report

Optimized Lattice Parameter: 5.2823e-10 m

Melting Point: 160 K

Boiling Point: 170 K

Total Runtime: 29.80 seconds

Best Verlet Algorithm: Leapfrog Verlet (Adaptive)

Best Time Step: 1.00e-16 s

Reason: Lowest average potential energy (-1.31e-20 J) and minimal energy drift (6.17e-24 J) during preliminary simulation.