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Molecular dynamics study of instability of nano-liquid column TAKERU YANO, TAICHI MURAKAMI, Department of Mechanical Engineering, Osaka University — Molecular dynamics study of argon nano-liquid column in equilibrium with surrounding its vapor is executed to investigate the instability for axisymmetric disturbances. As a result of careful and accurate calculation for nano-liquid columns of radius 1 to 4 nm, we can demonstrate that the classical criterion of stability limit $L_z = 2\pi R$ holds for the nano-columns with the appropriate definition of the column radius R for columns of length L_z.

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