

Fig. 1 Kinetic energy of water molecules in close vicinity of the substrate (layers 1 – 3). The kinetic energy of molecules within layer 1 and 2 are negligible and sporadic within layer 3.

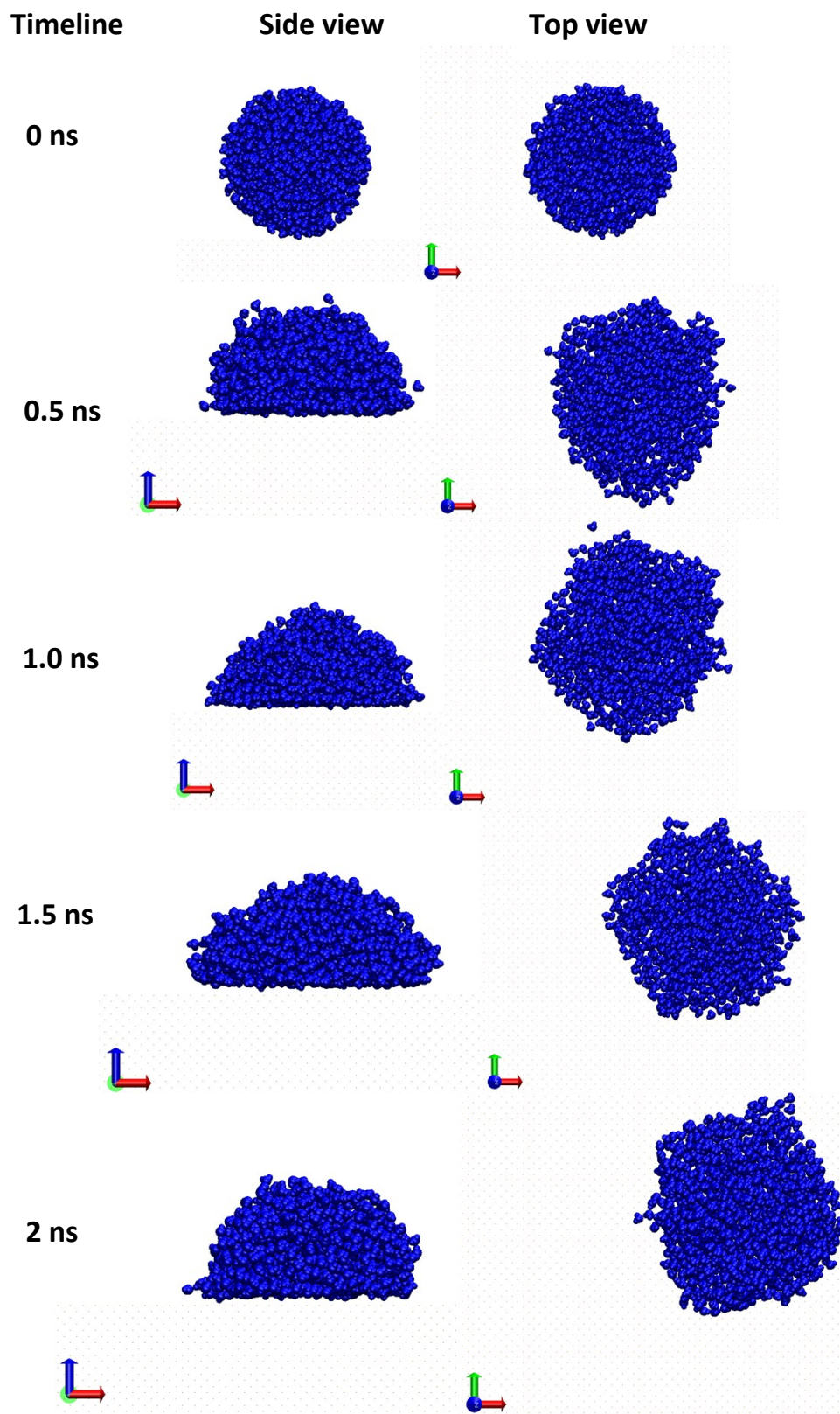


Fig. 2 Side and top view of a 4nm water droplet (473K on Si) showing shape deformation and spreading behavior. Nanodroplet moves to the top-right corner away from its original position after 0.5ns with substantial shape change due to the Leidenfrost effect.

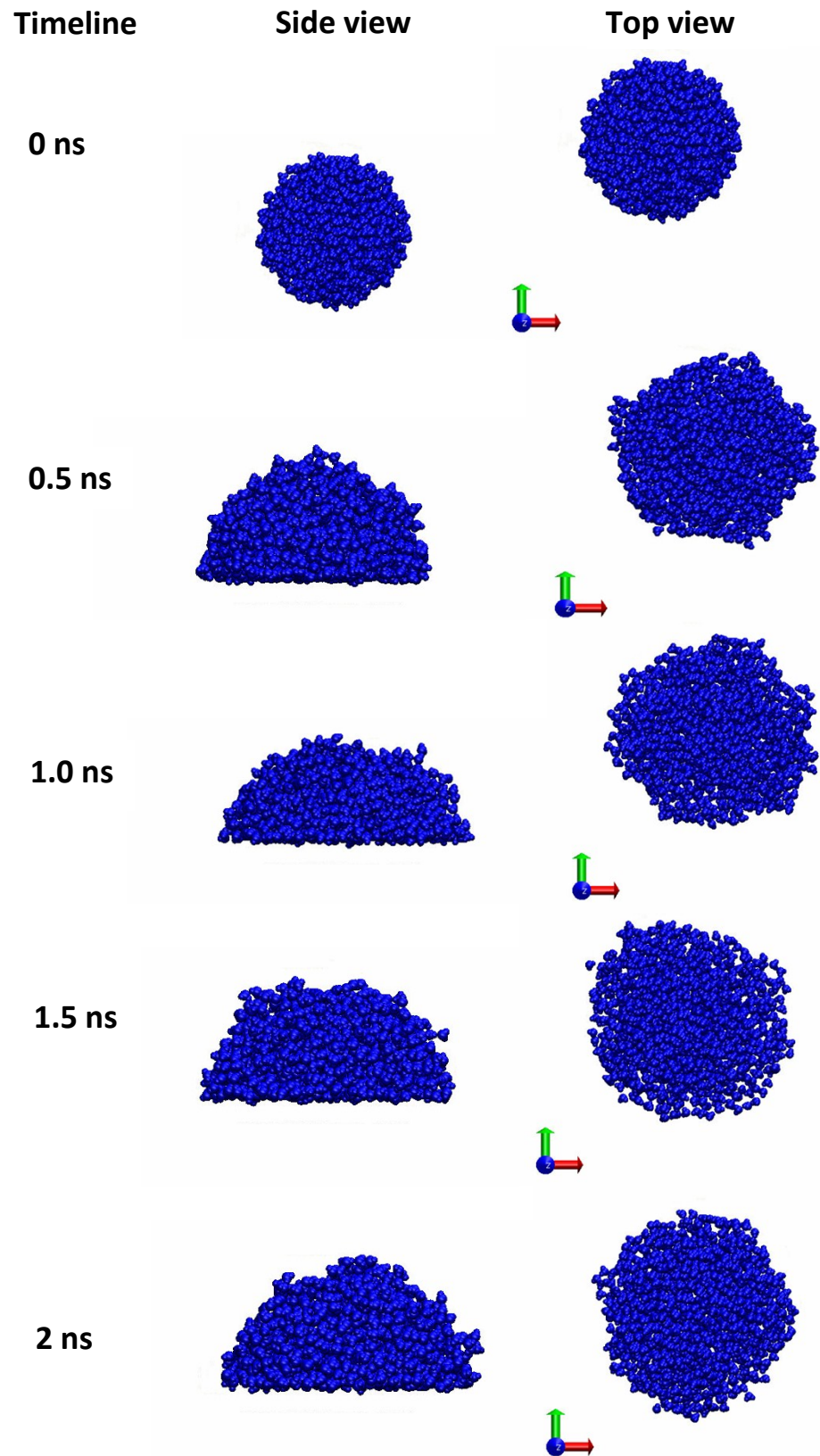


Fig. 3 Side and top view of a 4nm water droplet (293K on Si) showing shape deformation and spreading behavior. Nanodroplet maintains its original position and shape throughout 2.0ns.