The input file for the LAMMPS code to simulate the nanoindentation on the (110)Si at a temperature of 300 K is listed as follows:

```
units                   metal
boundary                p m p
atom_style              atomic
neighbor                4 bin
neigh_modify            delay 5
lattice                 diamond 5.431
read_data               data.txt
pair_style              atomistica BrennerScr
pair_coeff              * *    Si Si Si
group subin             type 1
group fixatom           type 2
group thermatom         type 3
group                   sub union subin fixatom thermatom
fix                     subin nve
fix                     6 fixatom setforce 0 0 0
fix                     7 fixatom nve
velocity                fixatom set 0 0 0 units box
fix                     9 thermatom langevin 300 300 0.1 89994827 tally yes
fix                     10 thermatom nve
variable                yy equal "408.70-step*0.002"
fix                     8 all indent 10.0 sphere 325.86 v_yy 326.041 100 units box
thermo                  50
timestep                0.0025
thermo_style            custom elapsed temp f_8[1] f_8[2] f_8[3]
dump                    1 all cfg 500 dump.indentation.*.cfg mass type xs ys zs type vx vy vz
dump_modify             1 element Si Si Si
dump_modify             1 first yes
dump_modify             1 sort id
run                     30000
```