

Supporting Information

A heat and force locating sensor in nanoscale precision: A knitted graphene sheet

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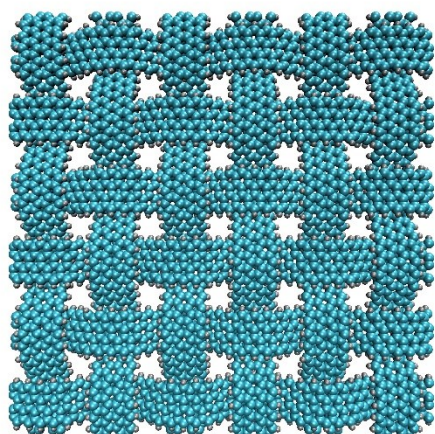
AUTHOR INFORMATION

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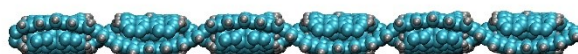
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(a) Top view



(b)

Side view



(c) Perspective view

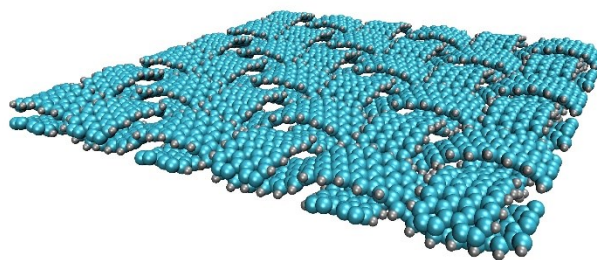


Figure S1. Top, side and perspective views of KGS (6,6) with edges terminated by hydrogen atoms.

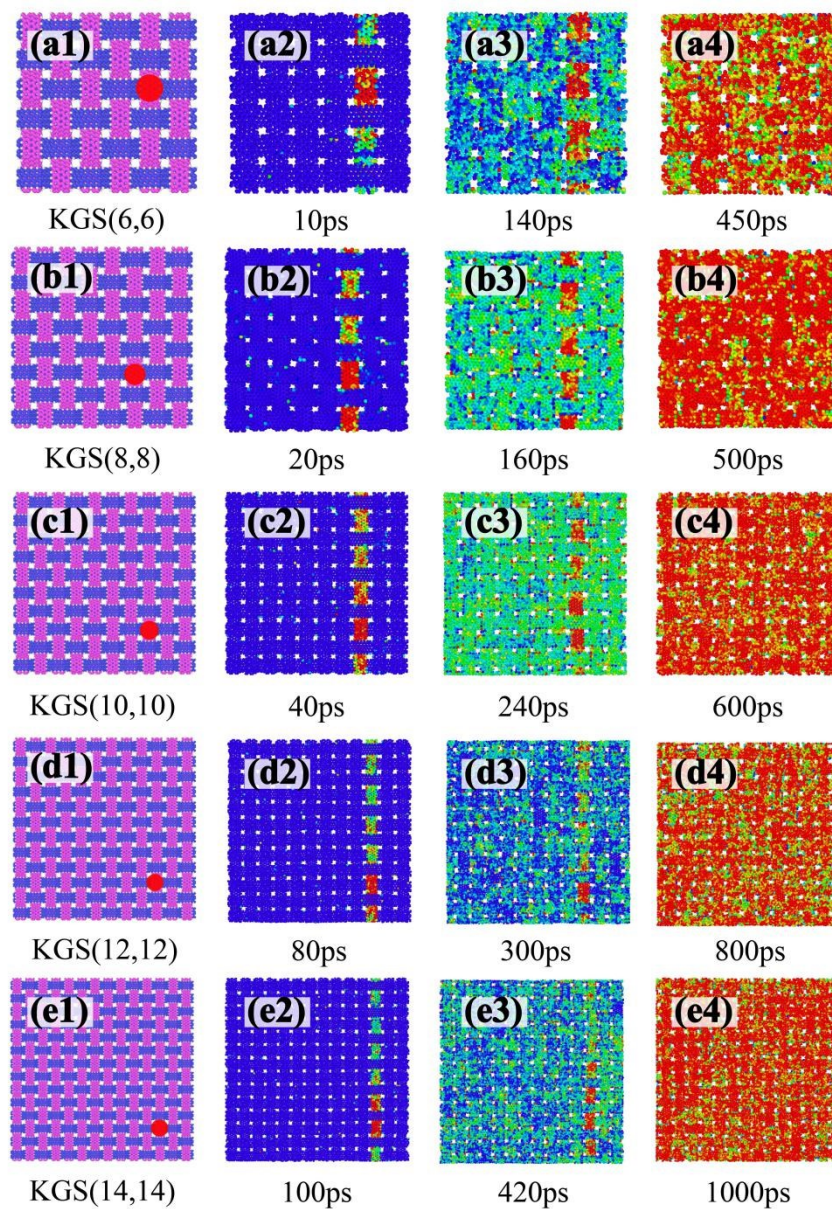


Figure S2. Atomic temperature distribution on five KGS models under contacting with a small heat source.

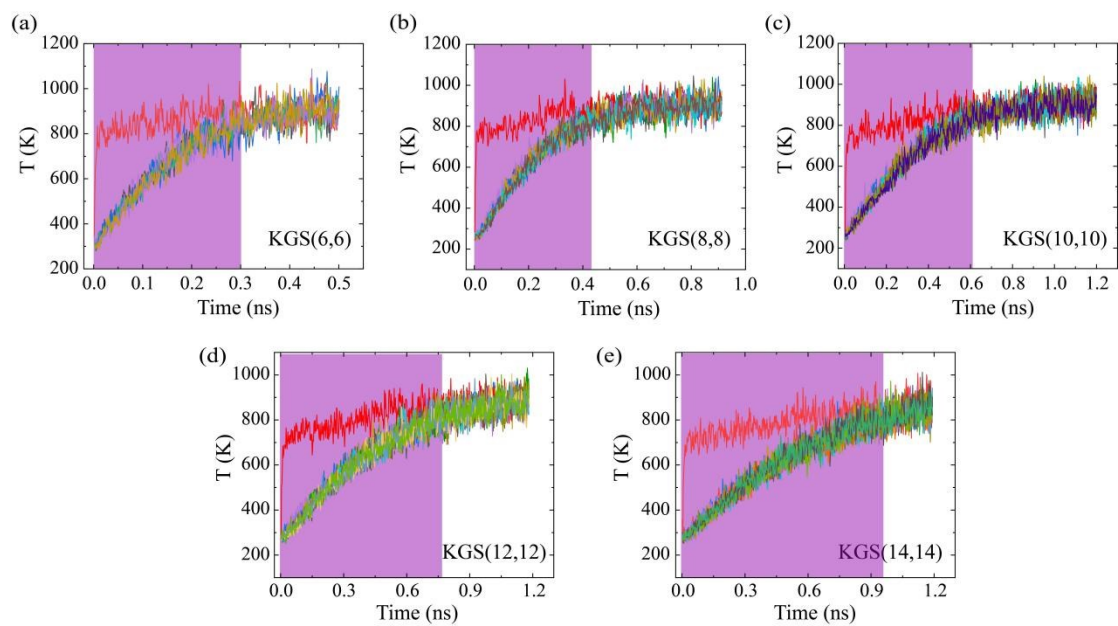


Fig. S3. Temperature variation of GNRs in KGS vs. simulation time with a small heat source.

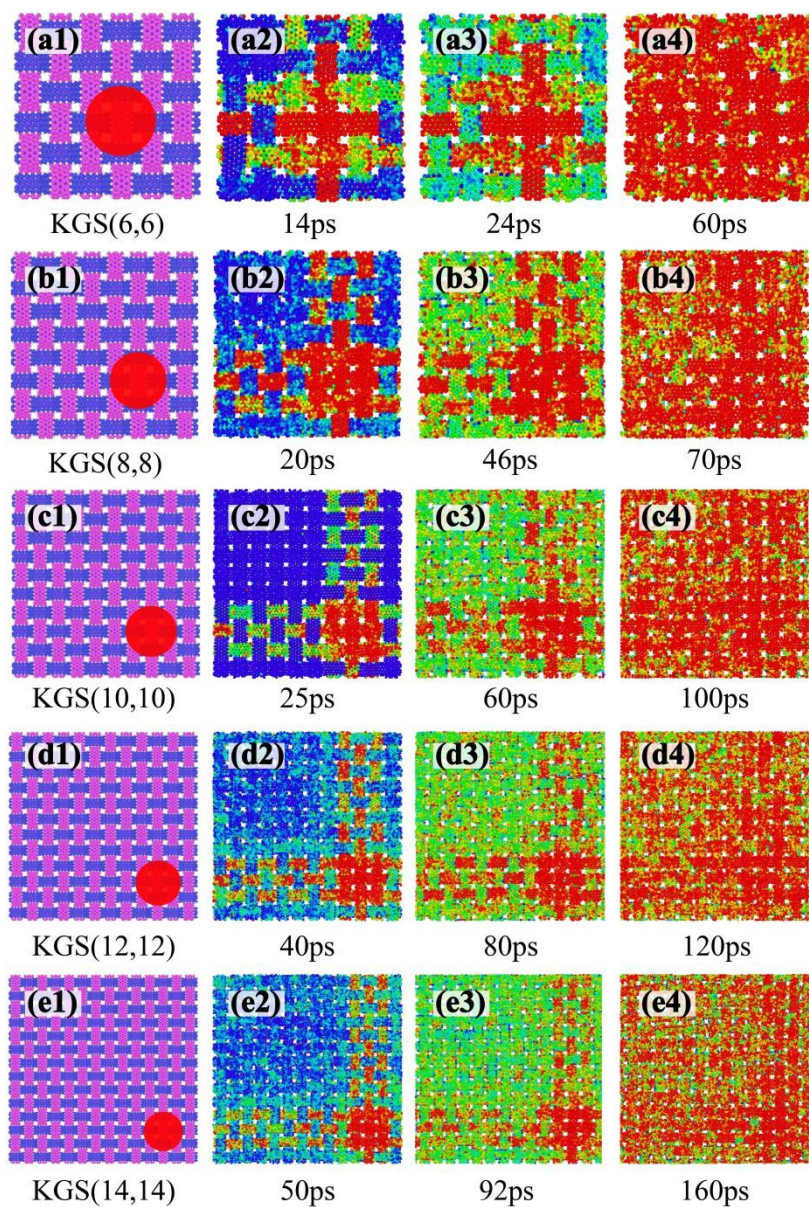


Figure S4. Atomic temperature distribution on KGS models under contacting with a large heat source.

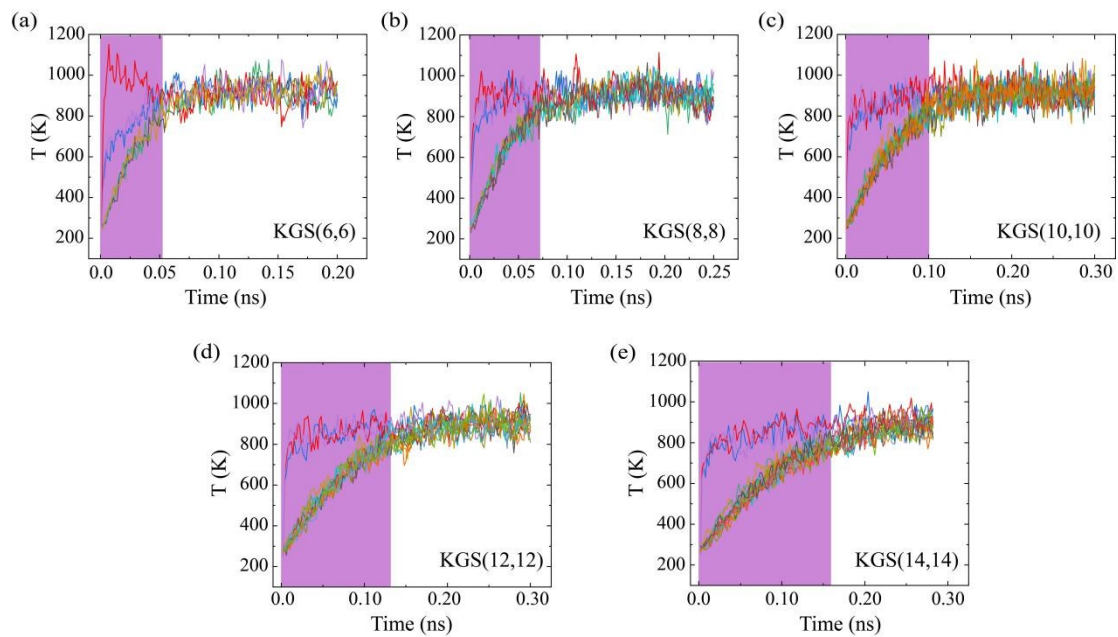


Fig. S5. Temperature variation of GNRs in KGS models vs. simulation time using a large heat source.

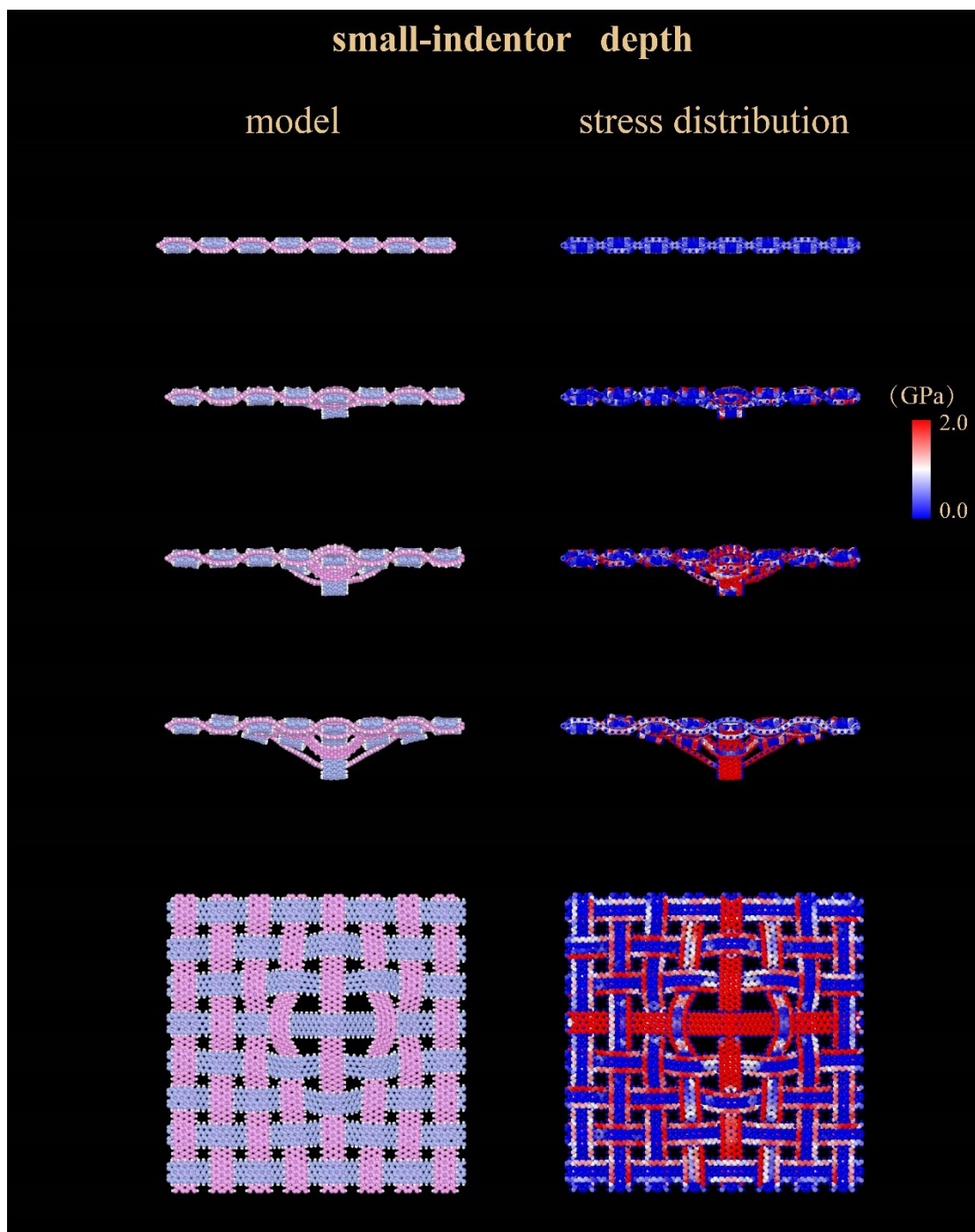


Fig. S6. Deformation and atomic stress distribution of KGS (8, 8) under indentation using a small indenter.

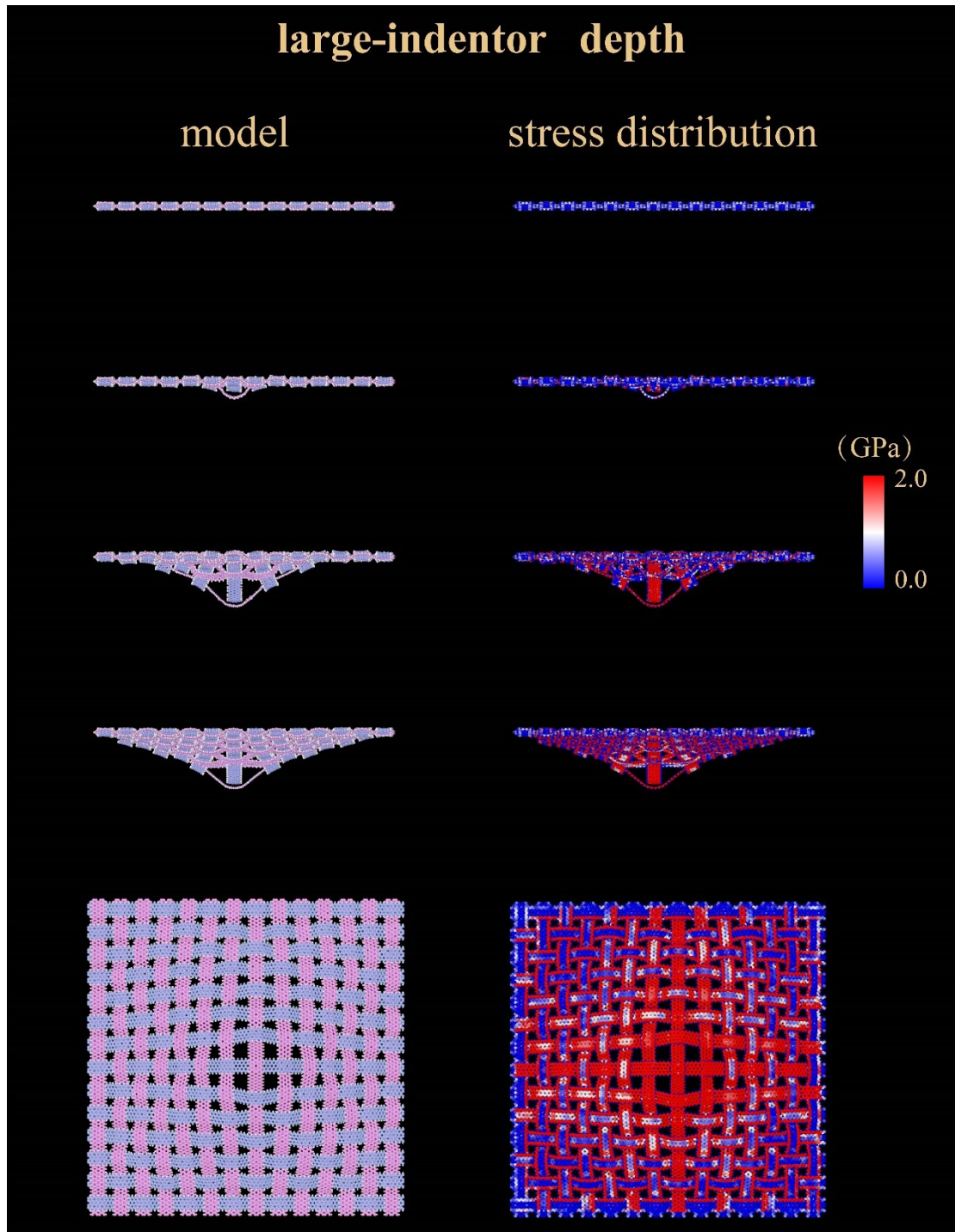


Fig. S7. Deformation and atomic stress distribution of KGS (14, 14) under indentation using a large indentor.

Table 1. Model information of KGSs and their corresponding t_{window} .

Model KGS(M,N)	No. Atom (count)	L (nm)	SHS t_{window} (ns)	LHS t_{window} (ns)
KGS(6,6)	4320	7.6	0.3	0.052
KGS(8,8)	7680	10.07	0.434	0.074
KGS(10,10)	12000	12.59	0.61	0.1
KGS(12,12)	17280	15.11	0.768	0.132
KGS(14,14)	23520	17.64	0.96	0.16