

**Supporting Information:**

**Molecular dynamics simulation insight into temperature dependence and healing  
mechanism of an intrinsic self-healing polyurethane elastomer**

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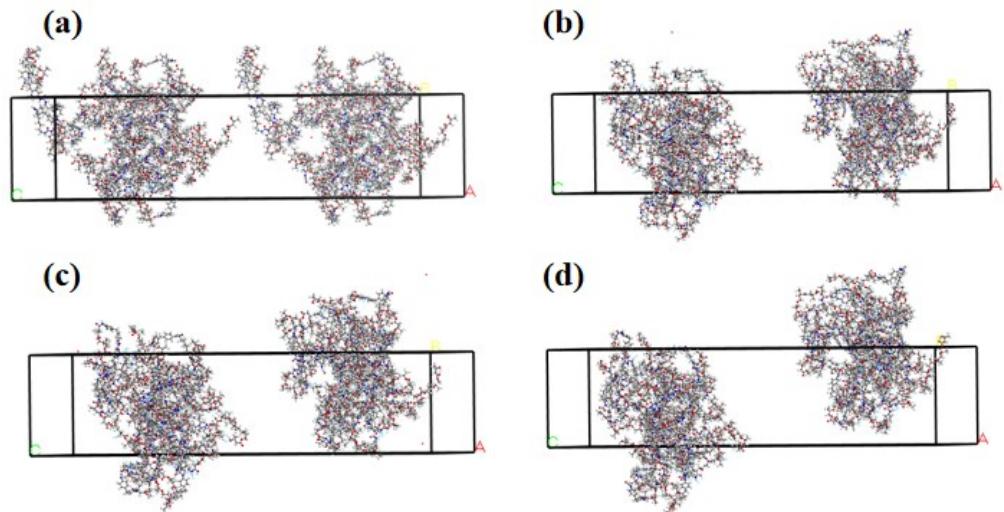
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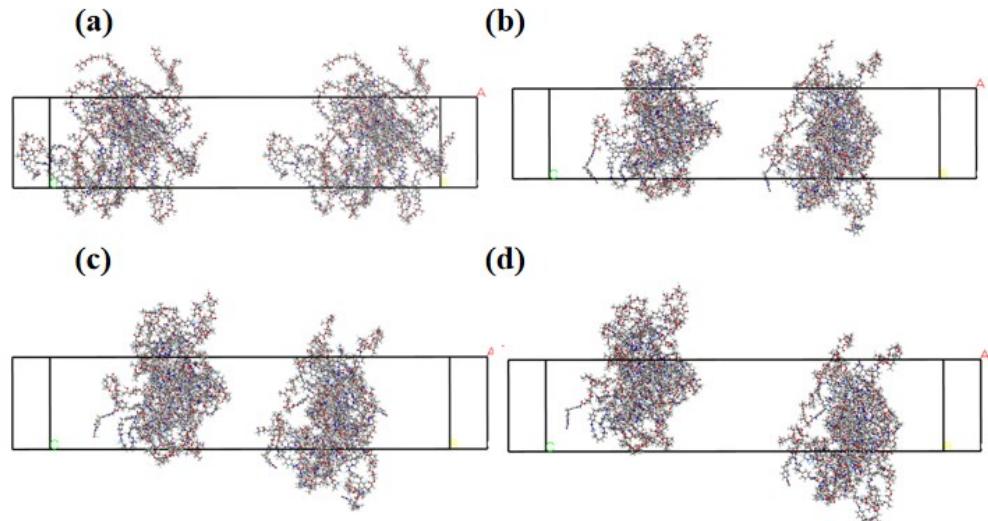
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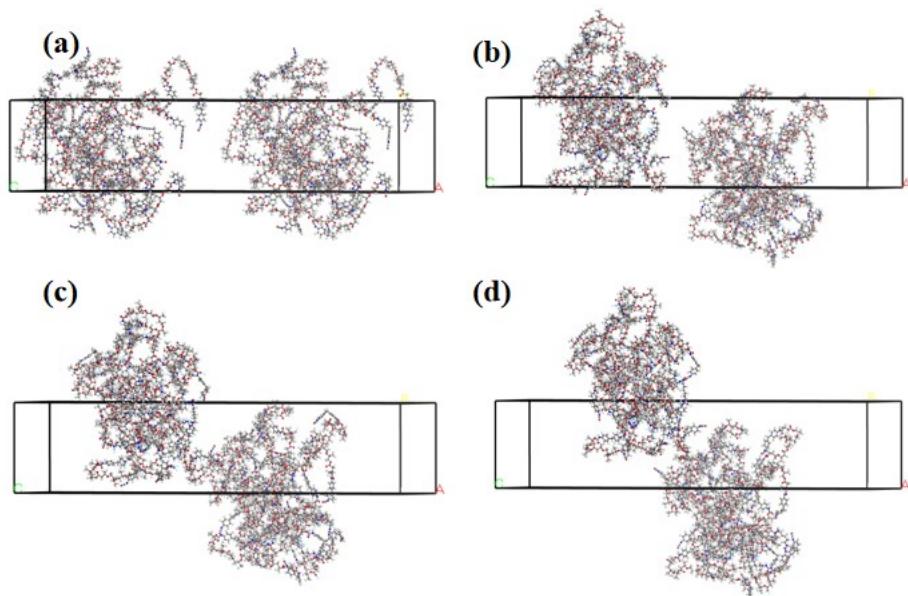
# Xianling Chen and Jing Zhu equally contributed to this paper.



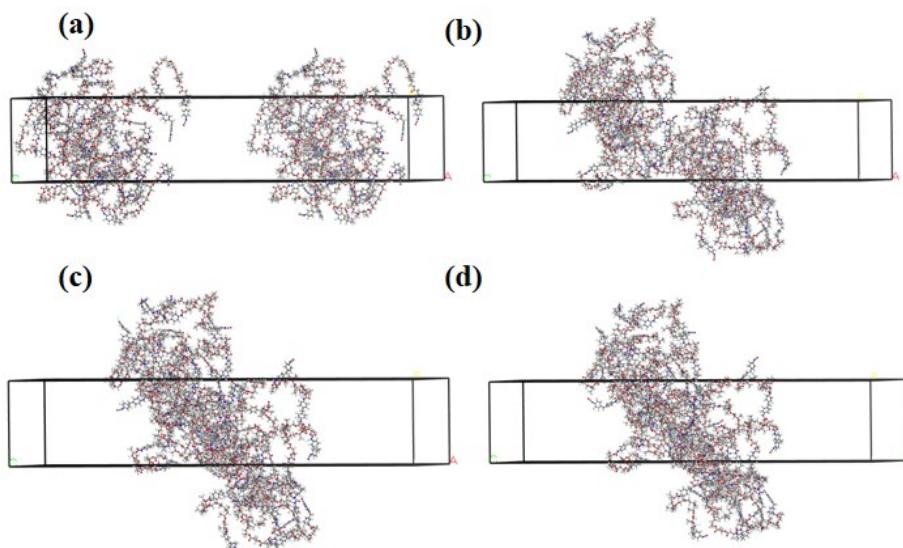
**Figure S1** Motion trajectories of the 10 Å crack of PU3 at (a) 5 ps, (b) 200 ps, (c) 400 ps and (d) 500 ps, respectively, at 25 °C.



**Figure S2** Motion trajectories of the 30 Å crack of PU3 at (a) 5 ps, (b) 200 ps, (c) 400 ps and (d) 500 ps, respectively, at 25 °C.



**Figure S3** Motion trajectories of the 10 Å crack of PU2 at (a) 5 ps, (b) 200 ps, (c) 400 ps and (d) 500 ps, respectively, at 25 °C.



**Figure S4** Motion trajectories of the 30 Å crack of PU2 at (a) 5 ps, (b) 200 ps, (c) 400 ps and (d) 500 ps, respectively, at 25 °C.