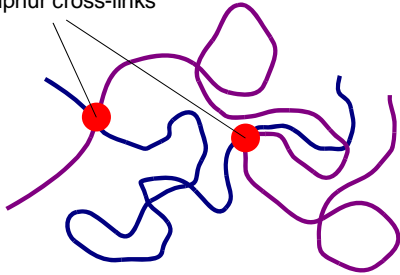


TAP 227- 5: Elastic behaviour in rubber

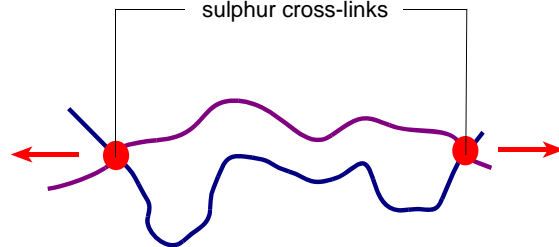
Rubber

sulphur cross-links



In unstretched rubber, chains meander randomly between sulphur cross-links.

sulphur cross-links



In stretched rubber, the chain bonds rotate, and chains follow straighter paths between cross-links. When let go, the chains fold up again and the rubber contracts.

Elastic extensibility > 100%

Rubber stretches and contracts by chains uncoiling and coiling up again. Rubber is elastic, not plastic.

External References

This activity is taken from Advancing Physics Chapter 5, 2100