

Toward Strong Self-Healing Polyisoprene Elastomers with Dynamic Ionic Crosslinks

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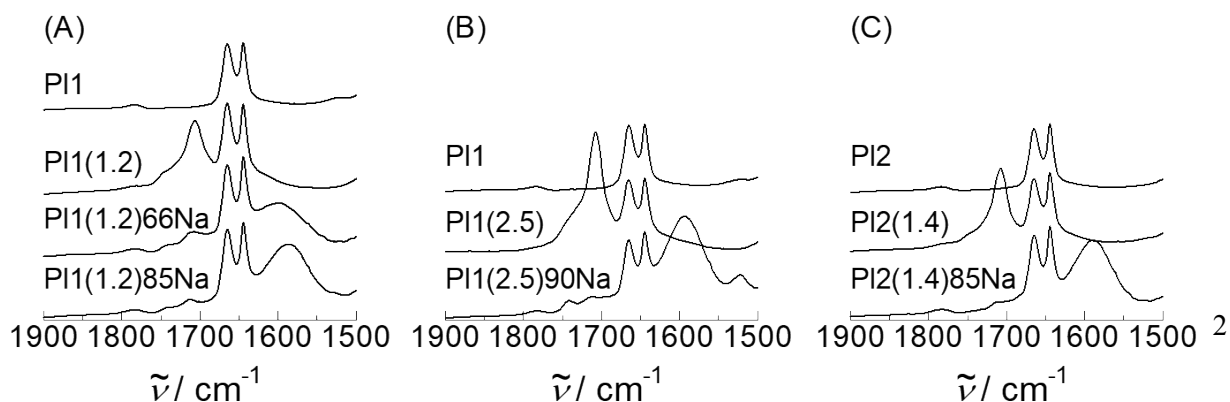
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Figure S1. FT-IR spectra for the indicated samples. The degree of neutralization of the samples was determined from reduction of band intensity of $\nu(\text{C}=\text{O})$ of COOH group at 1707 cm^{-1} and 1744 cm^{-1} normalized by the band intensity of $\nu(\text{C}=\text{C})$. By the neutralization, $\nu(\text{O}-\text{C}-\text{O}^-)$ of sodium carboxylate was generated at 1590 cm^{-1} .

Figure S2. (A) The chemical structures for isoprene trimers containing a carboxy group and a sodium carboxylate group. These model trimers are used for the calculation. Dimer for each combination with lowest energy DFT calculation result for (B) $-\text{COOH}\cdots\text{HOOC}-$, (C) $-\text{COONa}\cdots\text{HOOC}-$, and (D) $-\text{COONa}\cdots\text{NaOOC}-$ is presented.



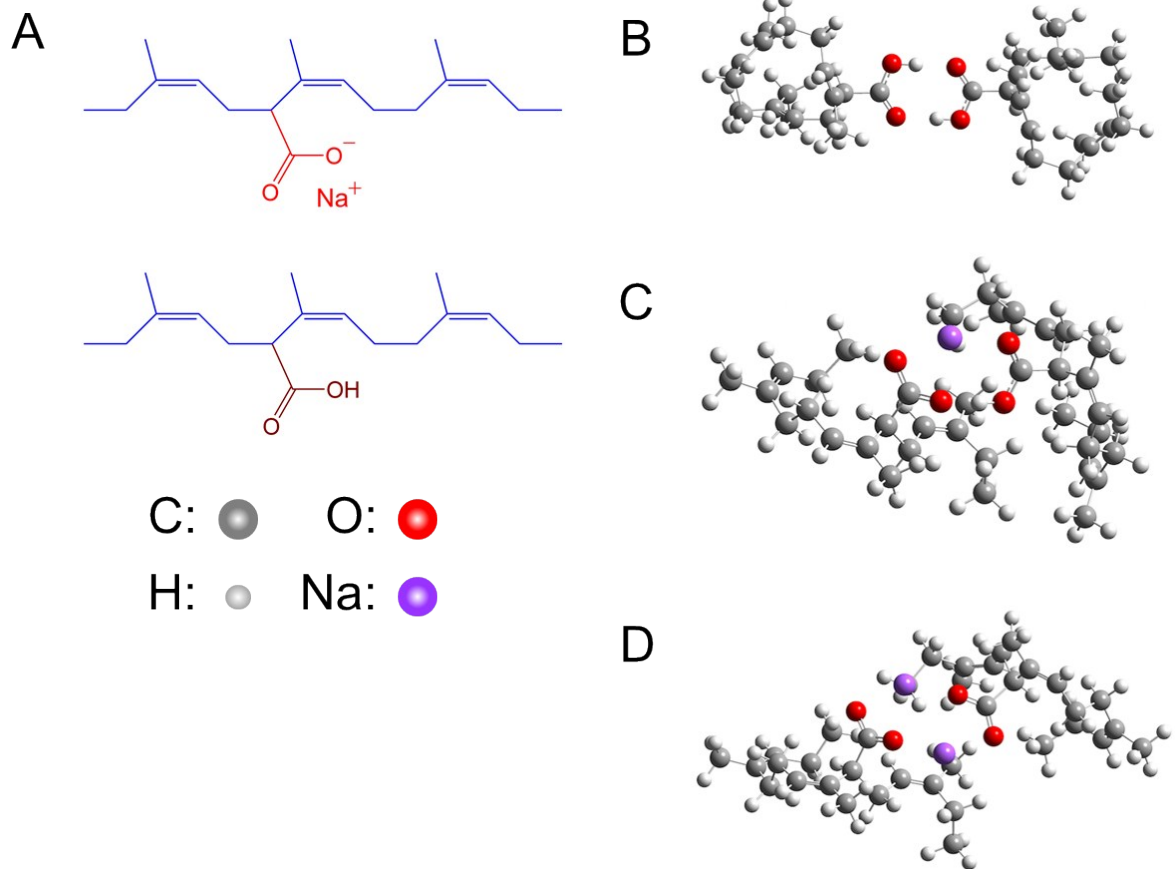


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