

Polymer

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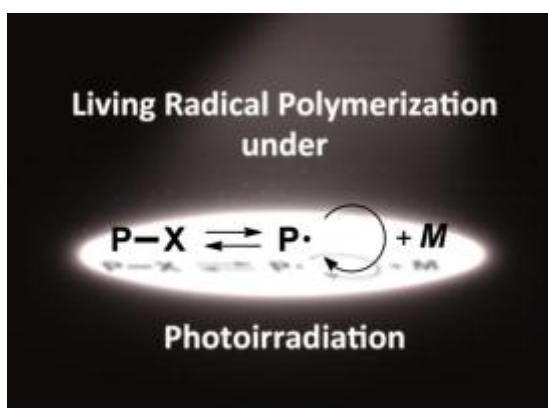
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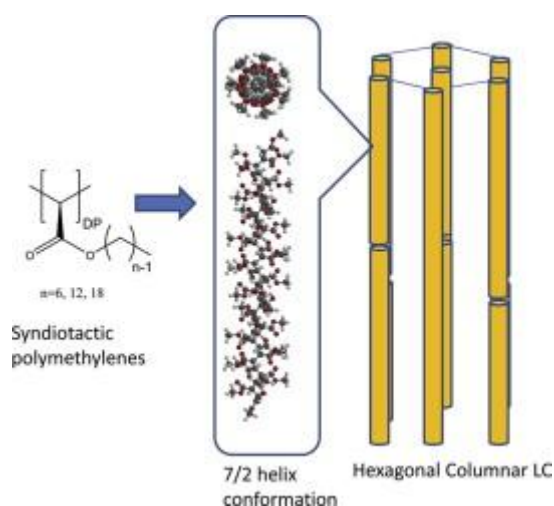
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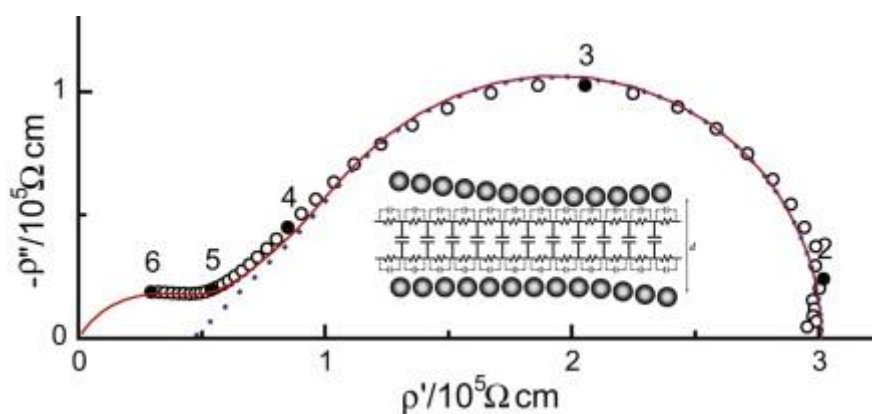


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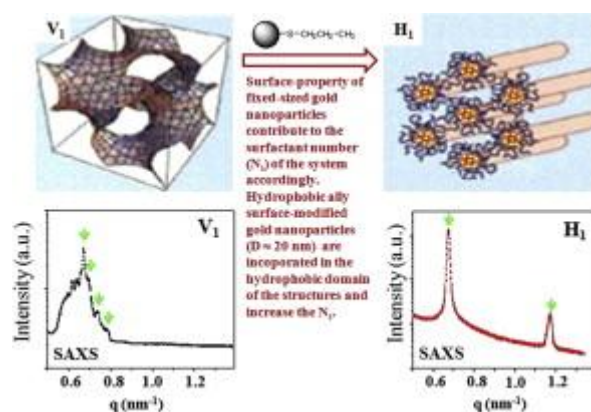


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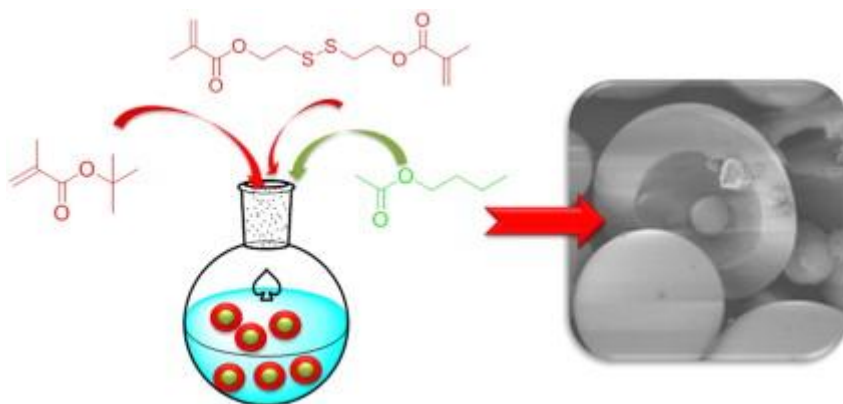
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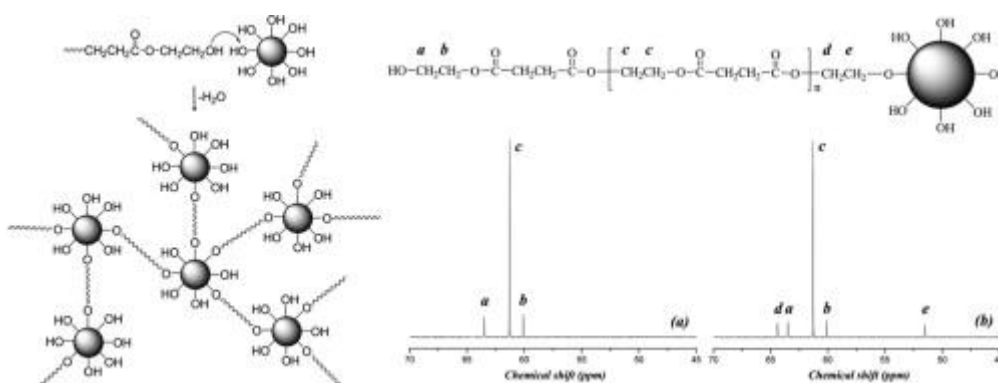
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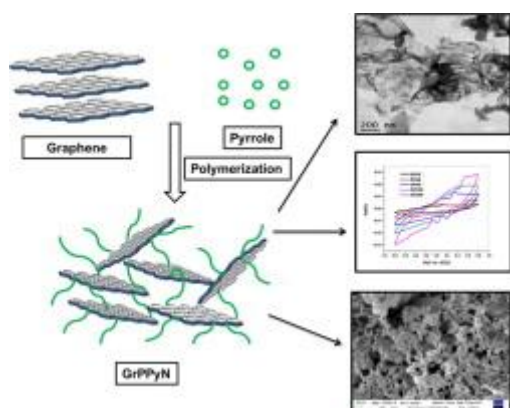
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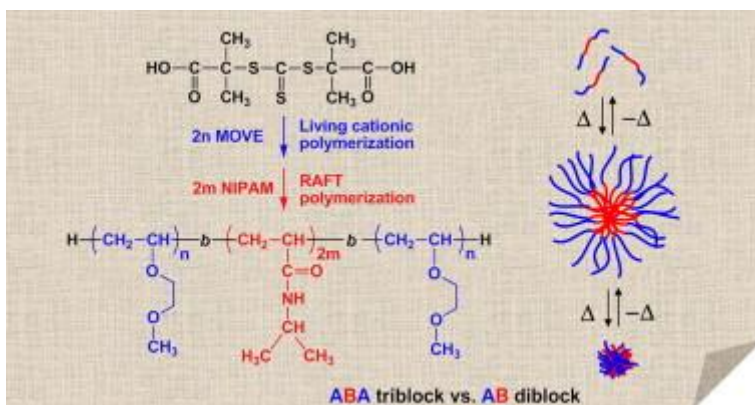
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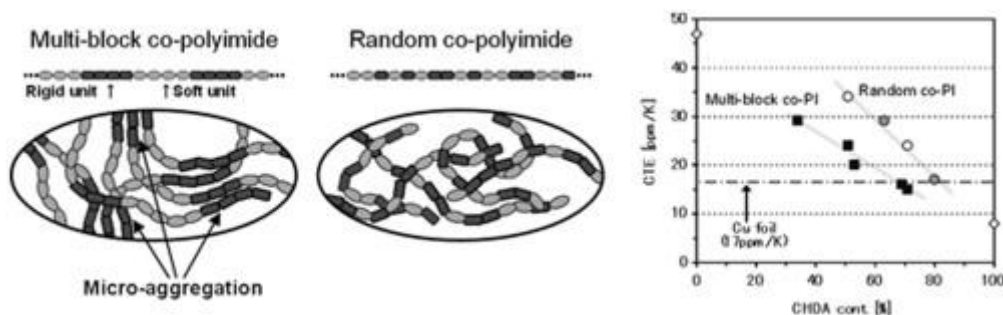
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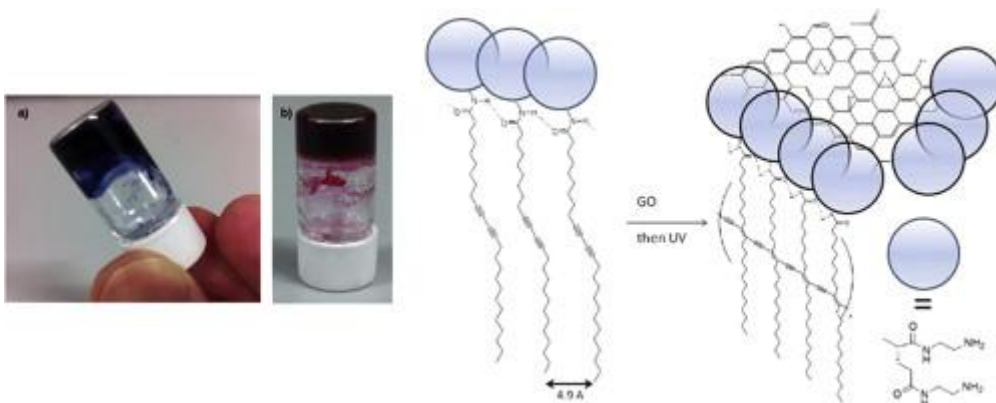
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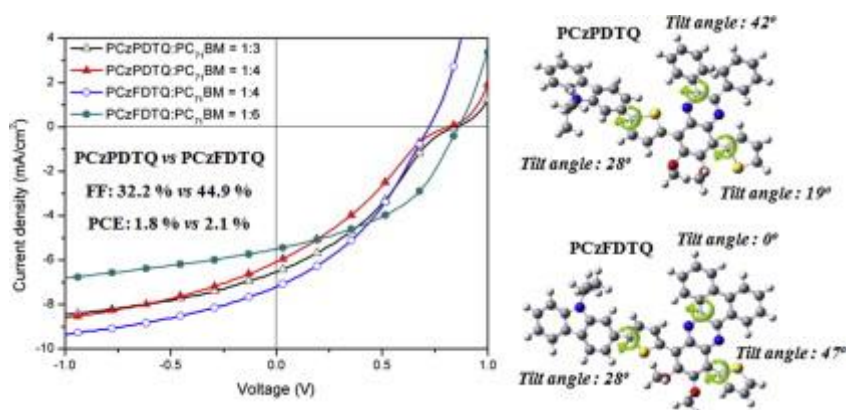
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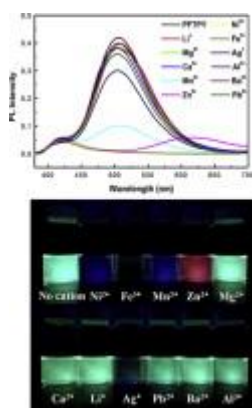
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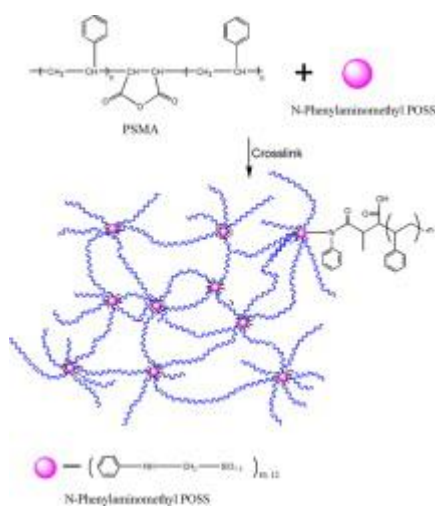
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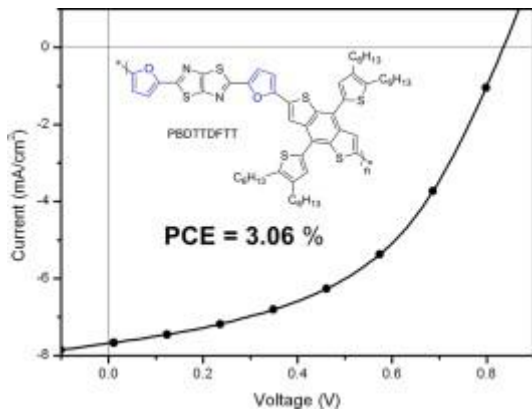
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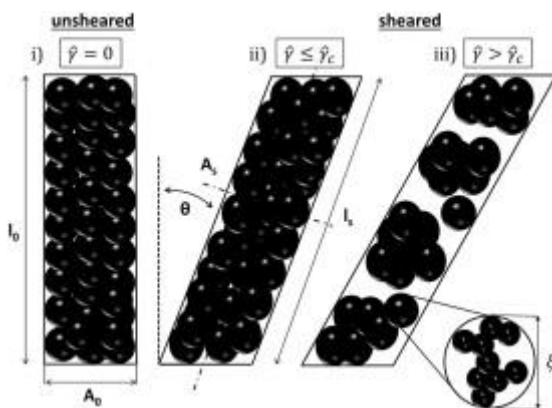
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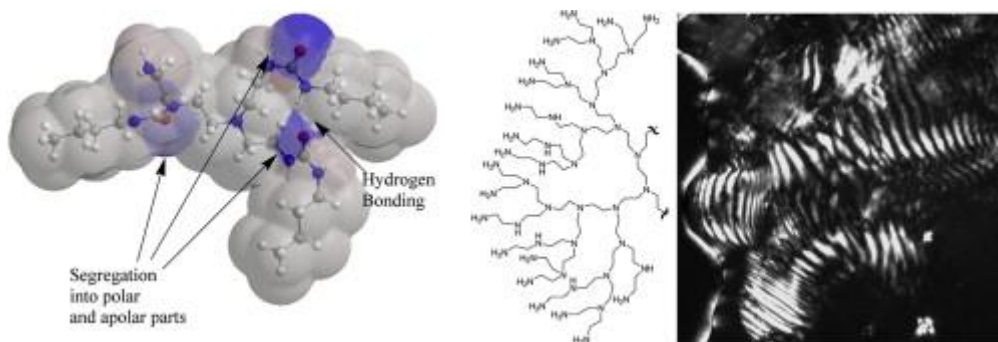
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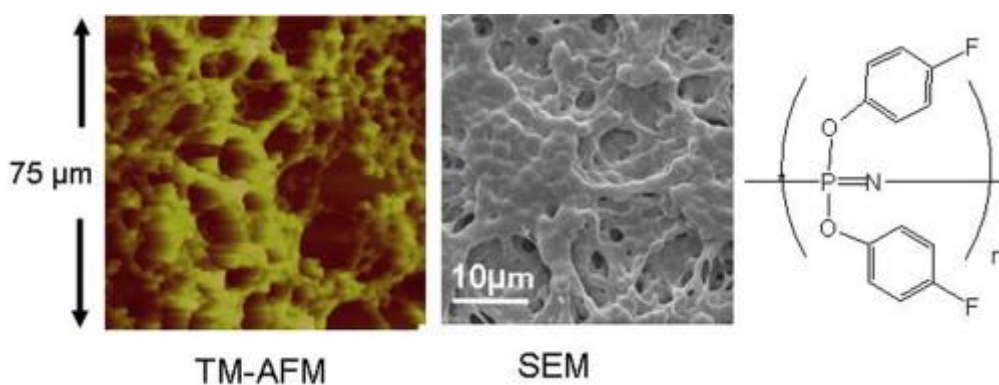
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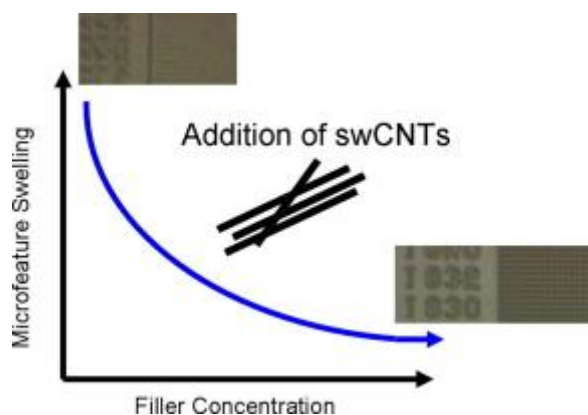
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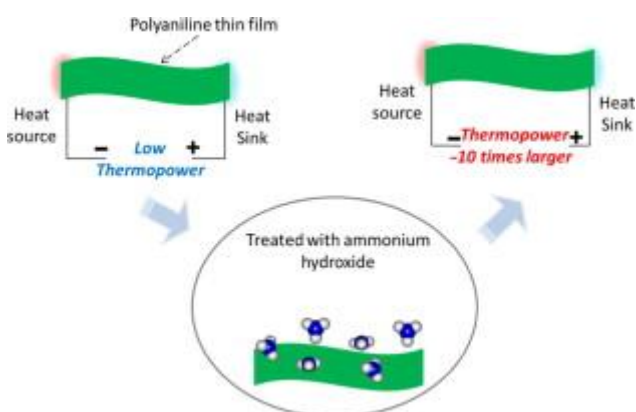
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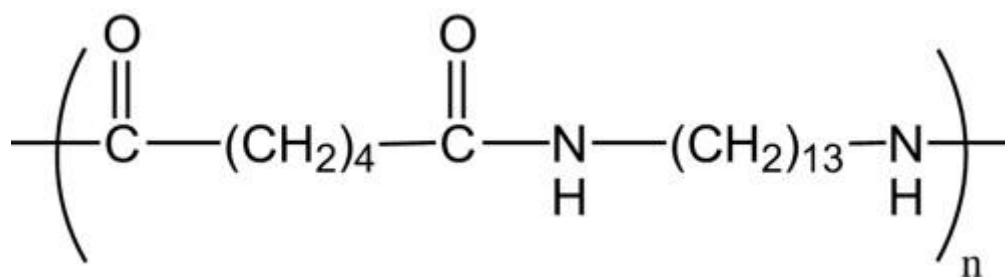
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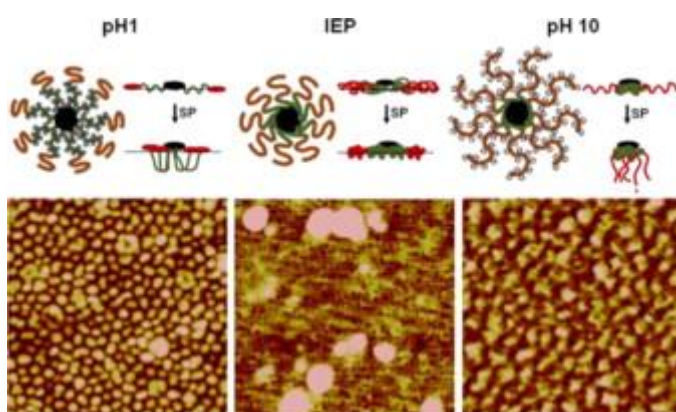
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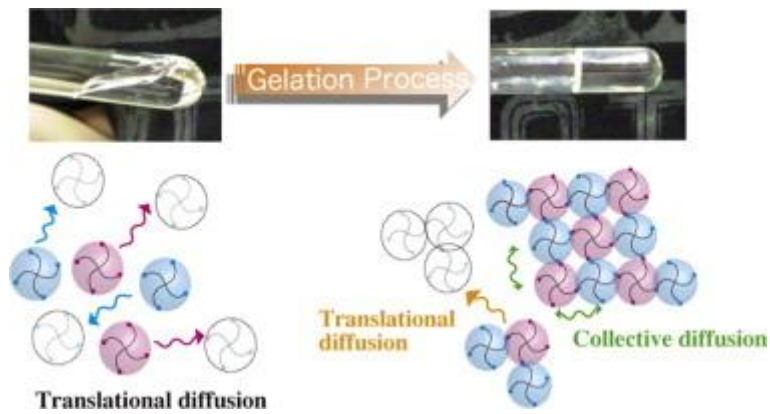
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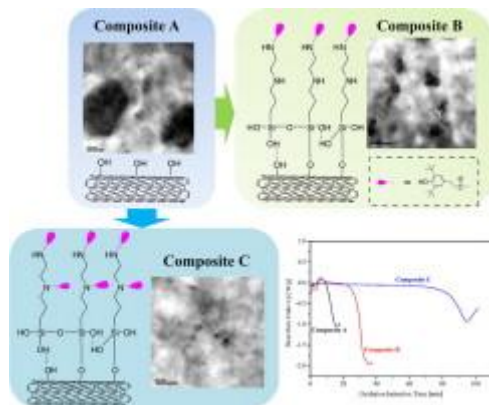
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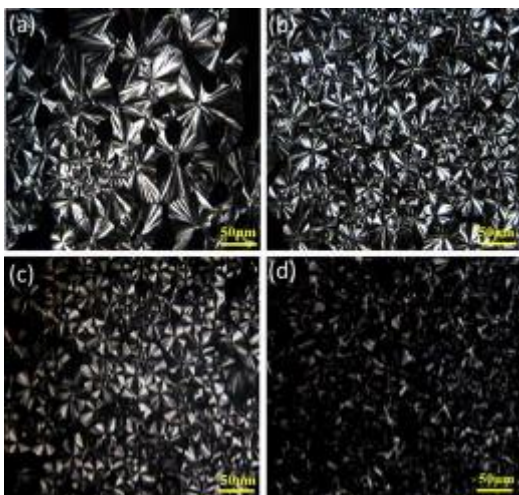
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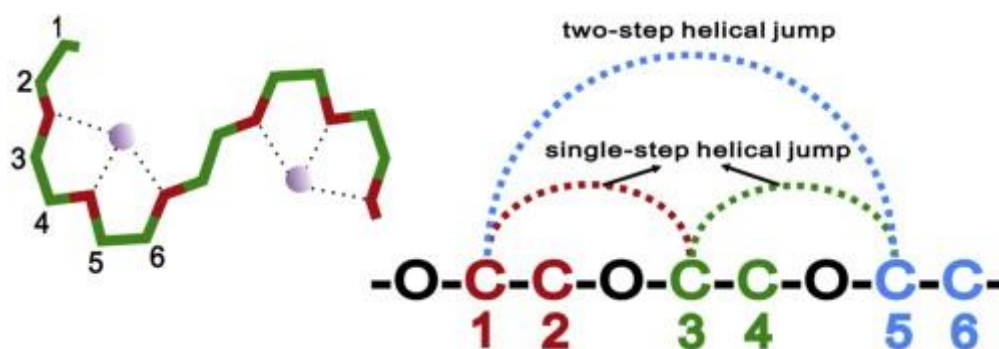
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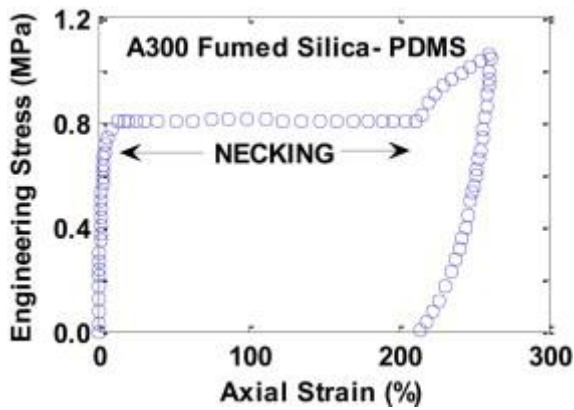
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Original Research Article

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Highlights

- ▶ For the first time necking is observed in an elastomer – fumed silica filled PDMS.
- ▶ Conditions for necking are 30 phr or more of high surface area and structure silica.
- ▶ Material in the neck exhibits significantly higher tensile strength.
- ▶ Likely mechanism is silica aggregates breakage.
- ▶ Material in the neck exhibits Mullins effect.

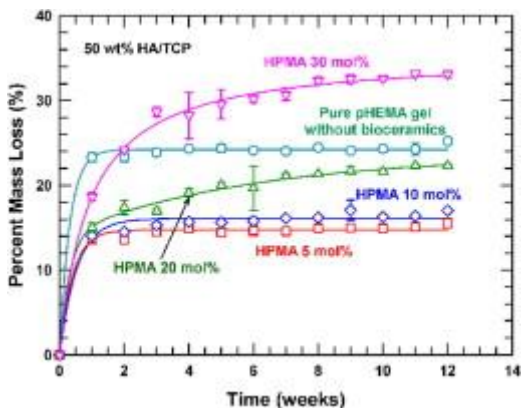
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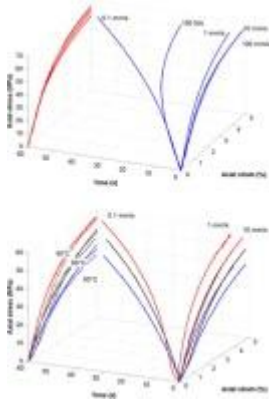
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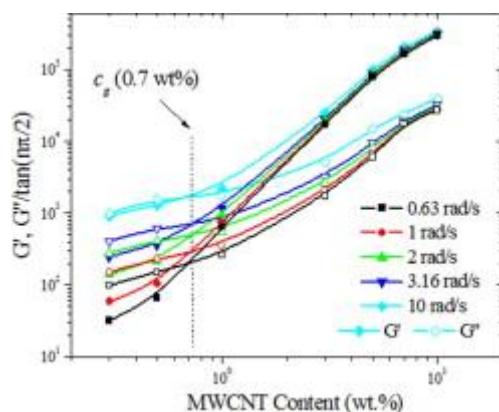
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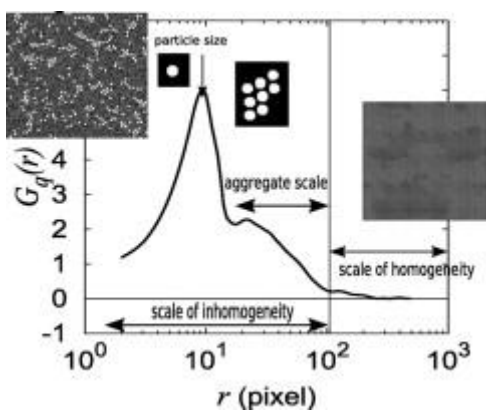
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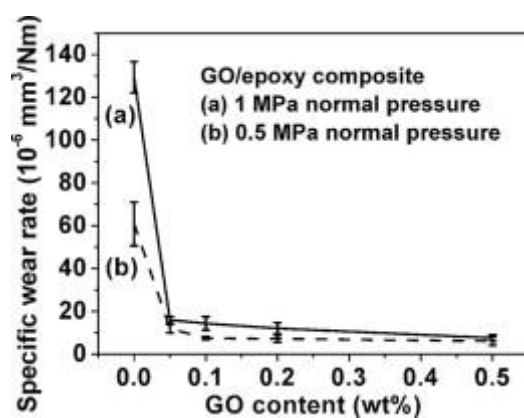
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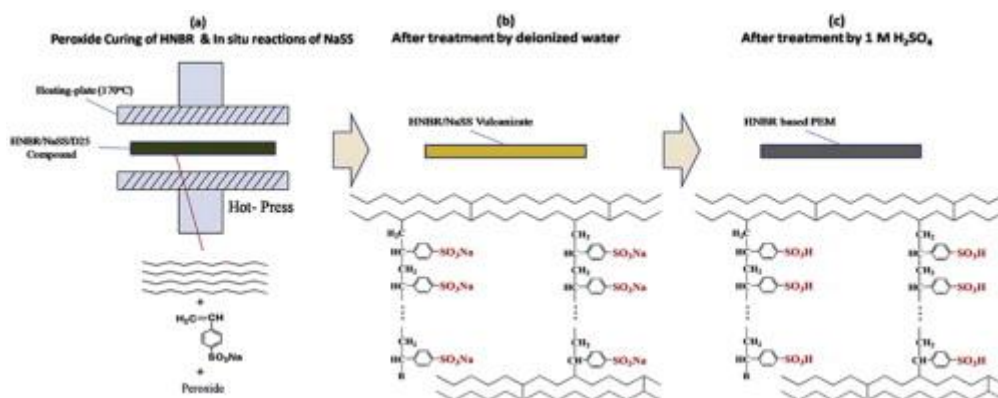
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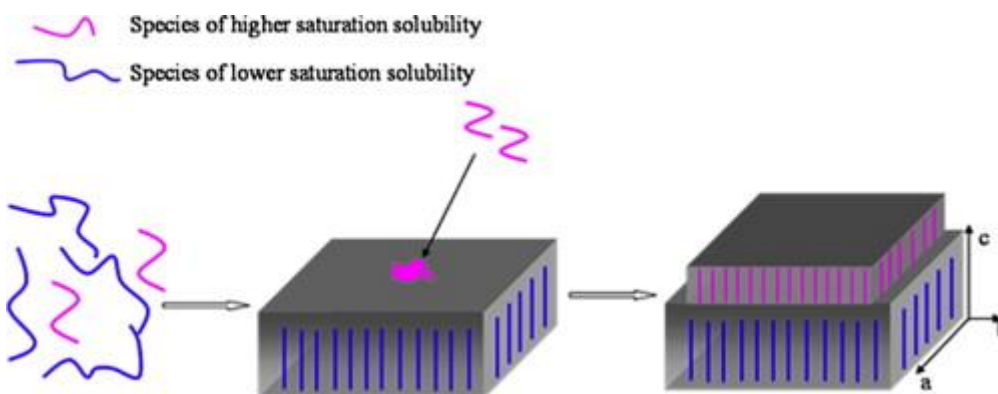
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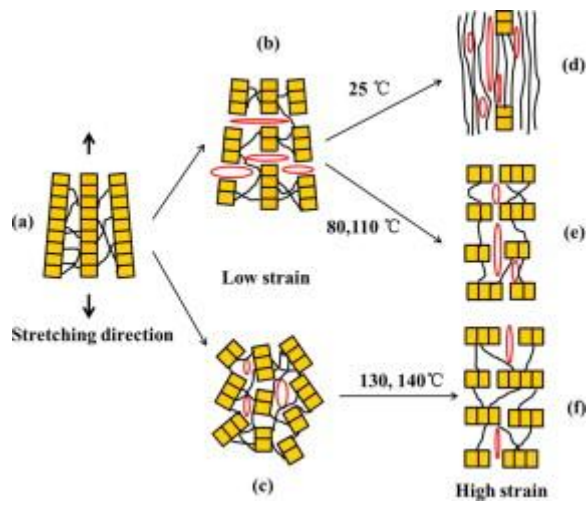
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