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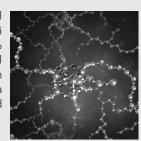
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In order to develop an efficient, simple and bio-compatible way to improve the thermal and mechanical properties of addition type liquid silicone rubber (LSR), Hongqiang Bai, Chi Huang, Liao Jun, and Houbin Li prepared Octavinyl-polyhedral oligosilsesquioxanes (OPOSS) modified LSR samples by adding 0.5–4.0wt.% of OPOSS as a modifier into the platinum-based silicone cure system before vulcanization. Experimental results showed that the cross-linking of OPOSS and LSR polymer contributed significant positive effects on thermal and mechanical properties. This work proved that to incorporate OPOSS into LSR polymer matrix by a hydrosilylation reaction could become an efficient way to improve mechanical property, thermal stability and bio-compatibility of LSR in the future. (DOI: 10.1002/app.43906)



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