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# Nanohybrid Hydrogels of Laponite: PVA-Alginate as a potential wound healing material

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## Highlights

- Nanohybrid hydrogel of Laponite:PVA-Alginate was synthesized for wound healing process.
- Laponite were applied to enhance mechanical and cellular response of hybrid hydrogel
- Laponite as hemostasis agent could decrease the coagulation time
- Laponite nanoplatelets reduced the degradation rate of nanohybrid hydrogel

## Abstracts

The aim of this study was to develop a novel nanohybrid interpenetrating network hydrogel composed of laponite:polyvinyl alcohol (PVA)-alginate (LAP:PVA-Alginate) with adjustable mechanical, physical and biological properties for wound healing application. Results demonstrated that compared to PVA-Alginate, mechanical strength of LAP:PVA-Alginate significantly enhanced (upon 2 times). Moreover, incorporation of 2 wt.% laponite reduced

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