

Development of injectable dual stimulus-responsive hydrogel using biodegradable poly(γ -glutamic acid)

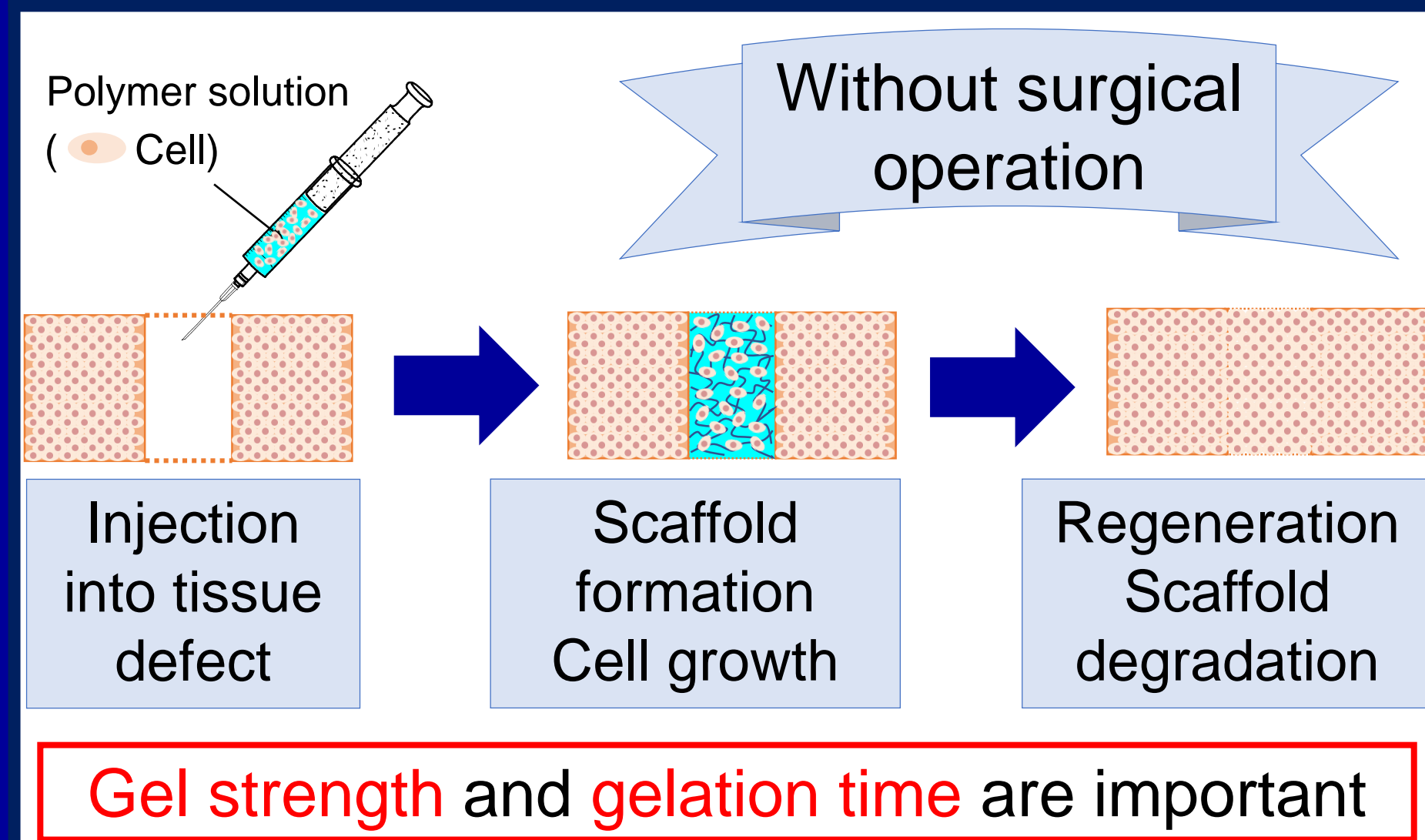


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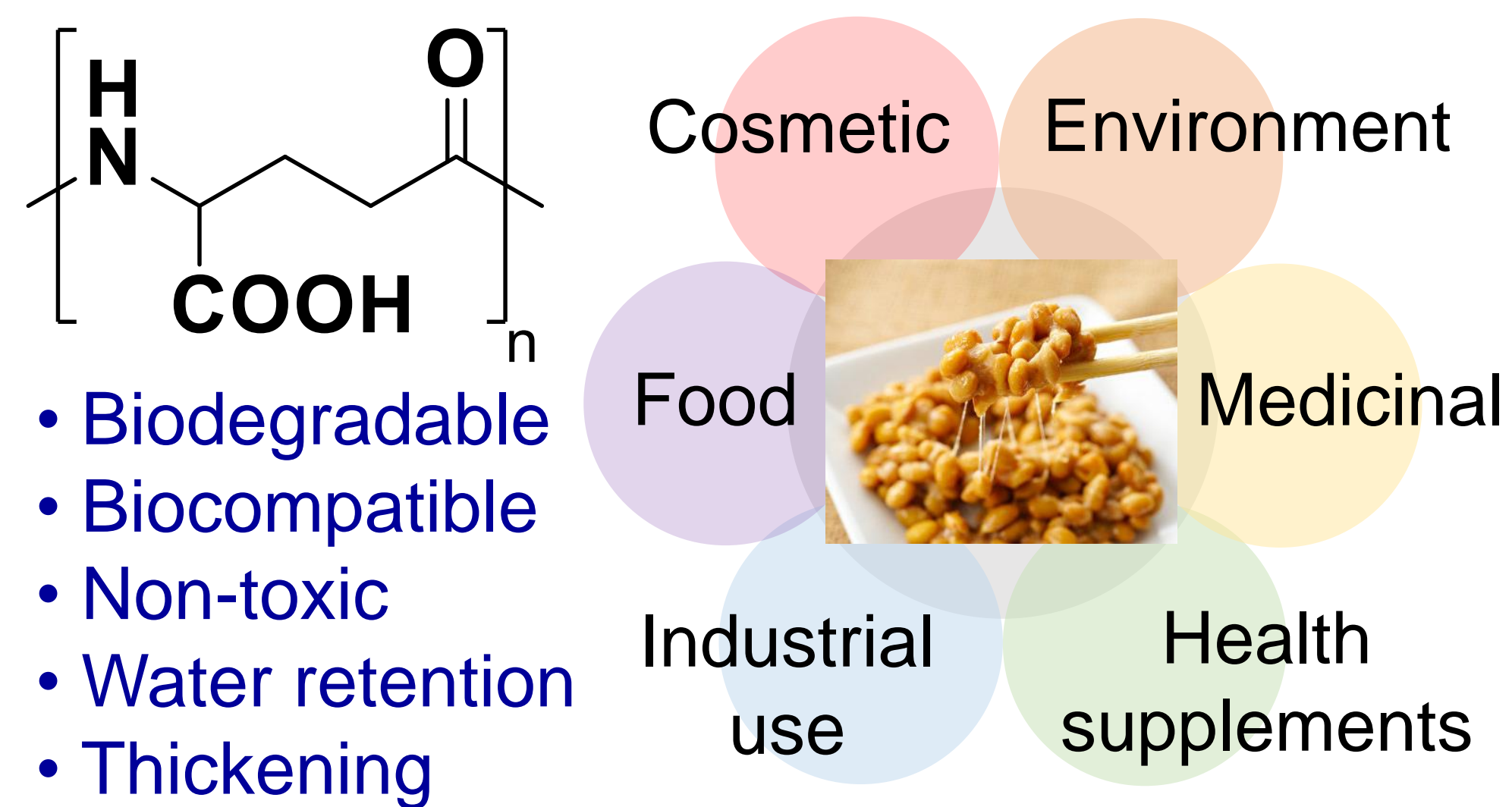
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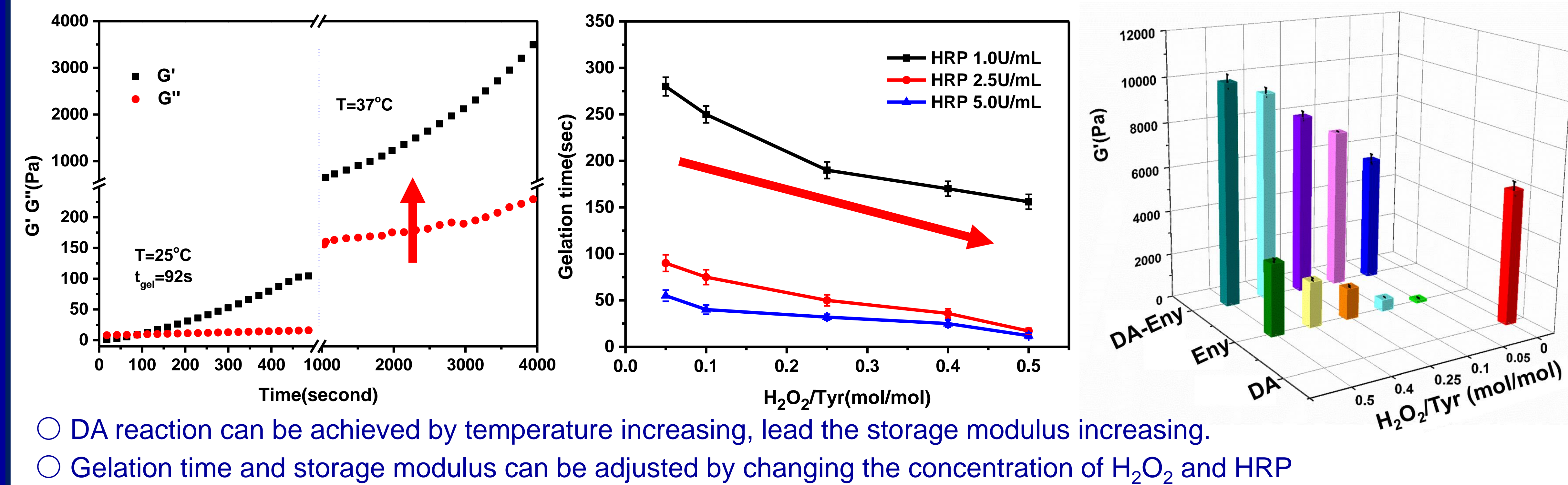
Injectable scaffold



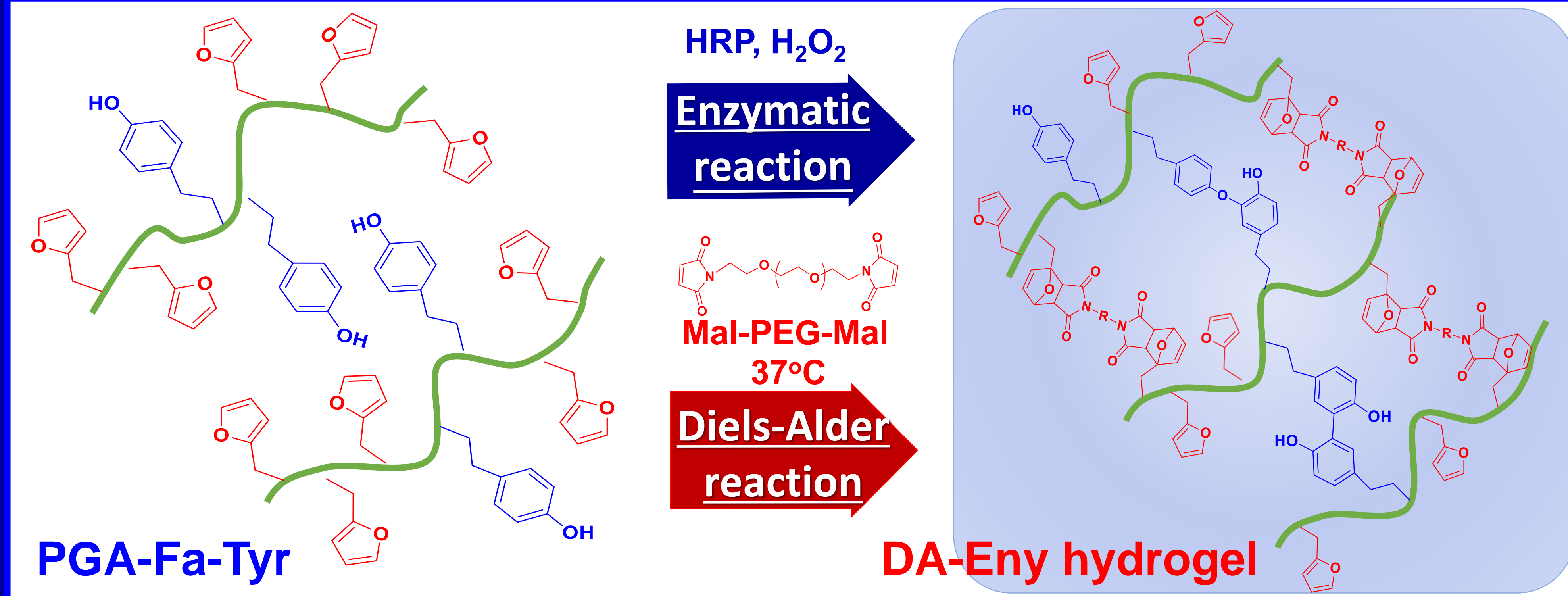
Polyglutamic acid (PGA)



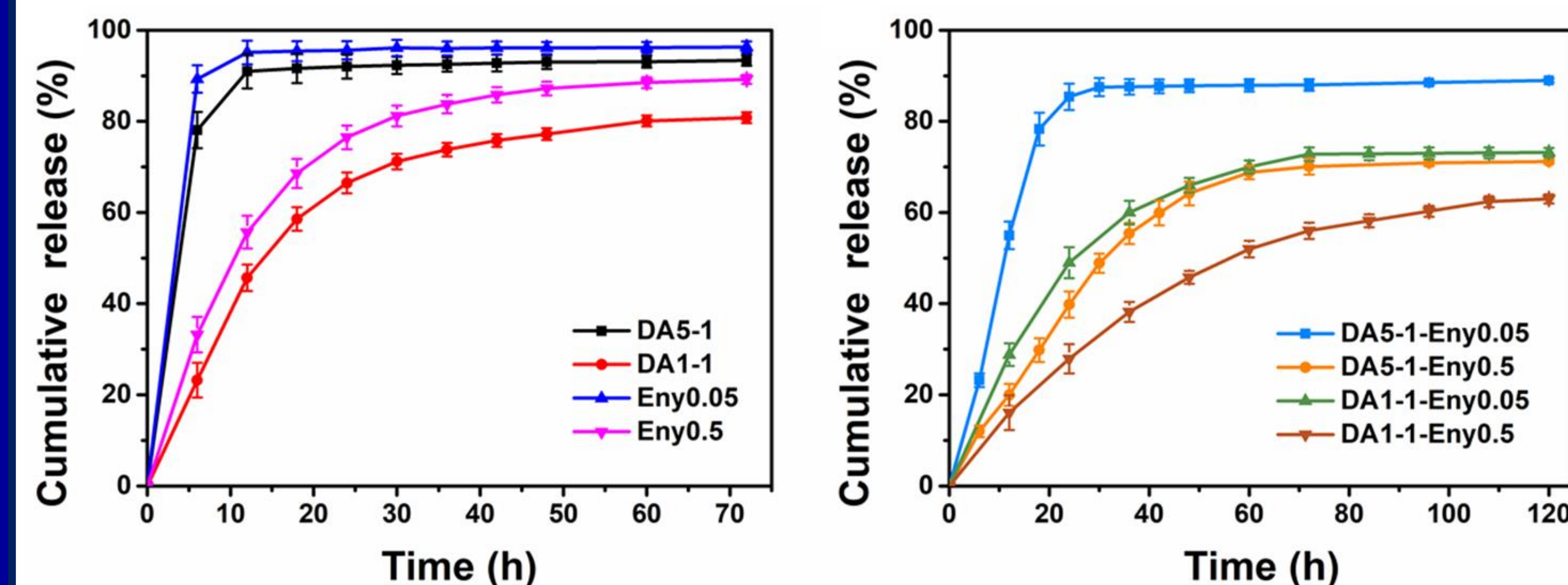
Gelation time and gel strength



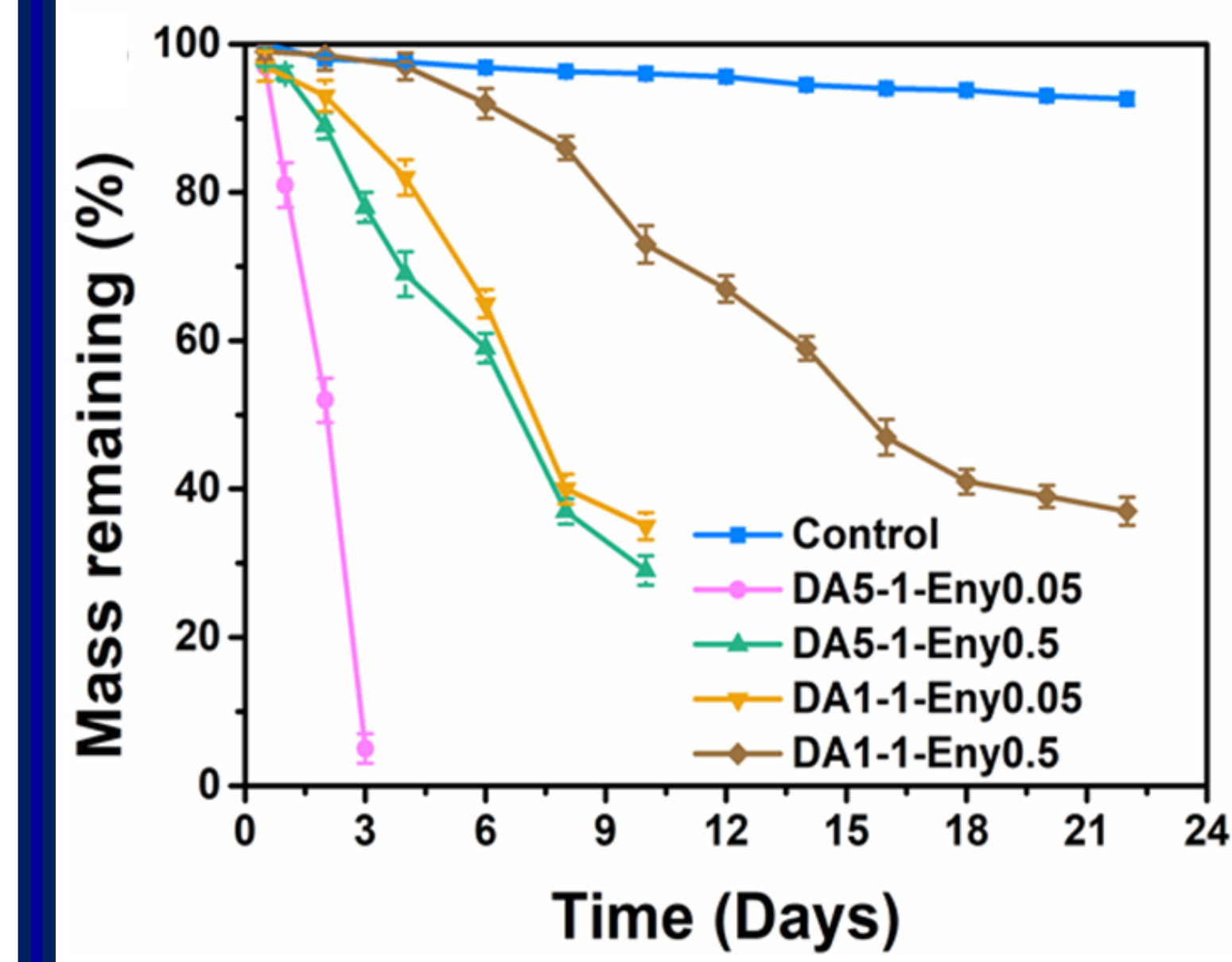
Design of dual crosslinking PGA hydrogel with rapid injectability and controllable mechanical properties



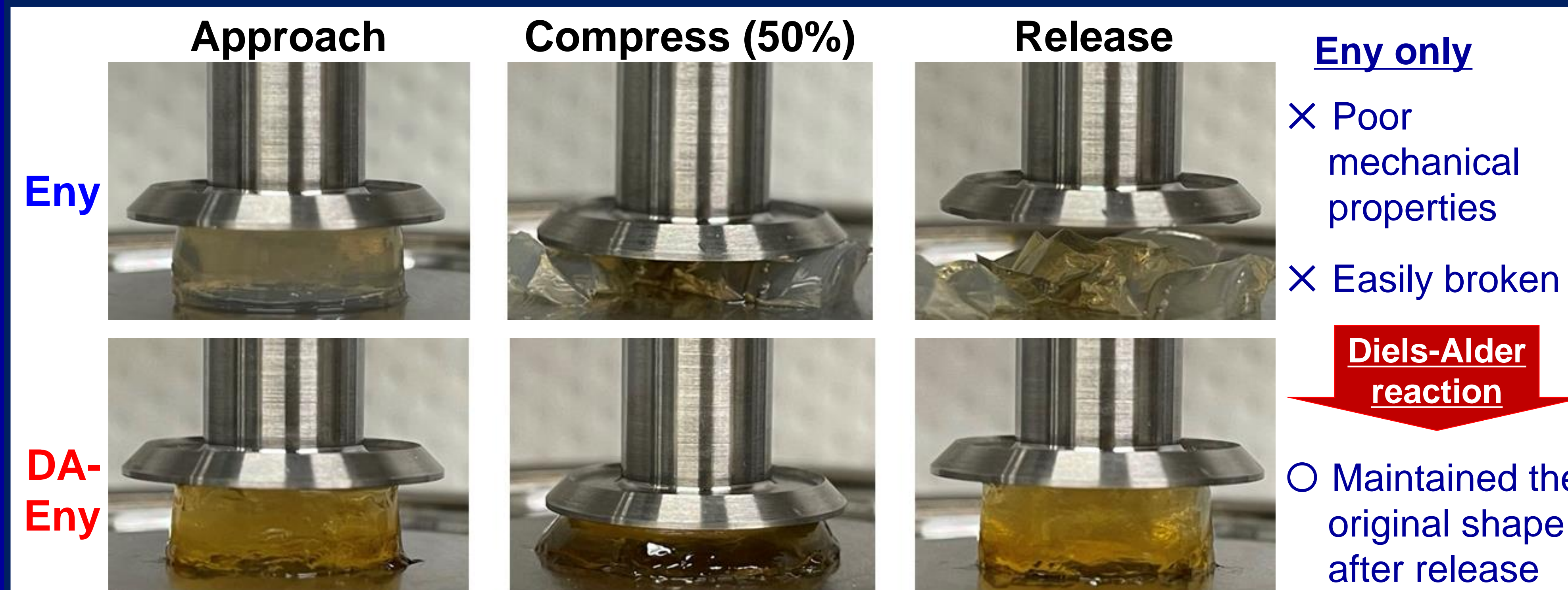
In vitro release profiles of BSA



Degradation behavior



Compression and release processes of hydrogels



Conclusion

◆ An injectable polypeptide hydrogel was prepared by integrating DA click chemistry and enzymatic crosslinking.
◆ The mechanical properties can enhanced by introducing DA chemistry, and the gelation time can easily adjust by changing the concentration of HRP and H₂O₂.

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