

Supporting information for *Journal of Materials Chemistry B*

Complete zwitterionic double network hydrogels with great toughness and resistance against foreign body reaction and thrombus

Kang-Ting Huang^a, Pai-Shan Hsieh^b, Lien-Guo Dai^c, Chun-Jen Huang^{a,d,e,}*

^a Department of Biomedical Sciences and Engineering, National Central University, Jhong-Li, Taoyuan 320, Taiwan

^b Division of Plastic and Reconstructive Surgery, Department of Surgery, Tri-Service General Hospital, National Defense Medical Center, Taiwan

^c Department of Orthopedics, Min-Sheng General Hospital, Taoyuan 330, Taiwan

^d Department of Chemical & Materials Engineering, National Central University, Jhong-Li, Taoyuan 320, Taiwan

^e R&D Center for Membrane Technology, Chung Yuan Christian University, 200 Chung Pei Rd., Chung-Li City 32023, Taiwan

* Email: cjhuang@ncu.edu.tw (C.-J. H.)

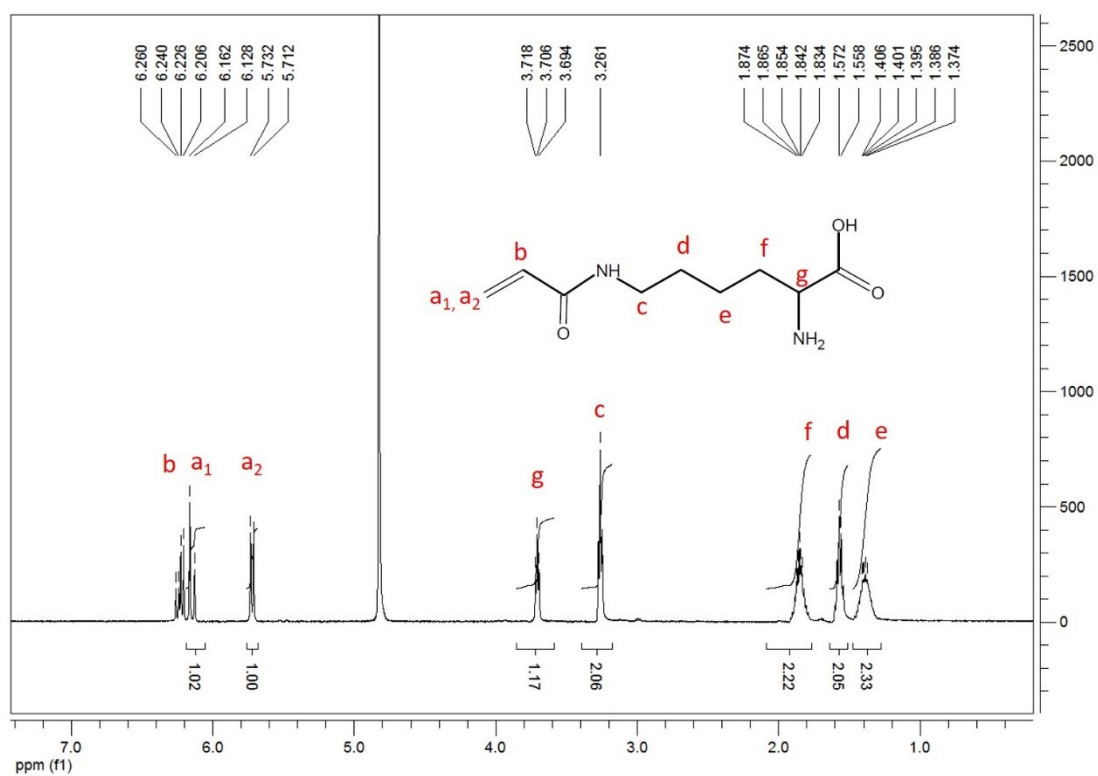


Fig. S1 ^1H NMR characterization of LysAA.

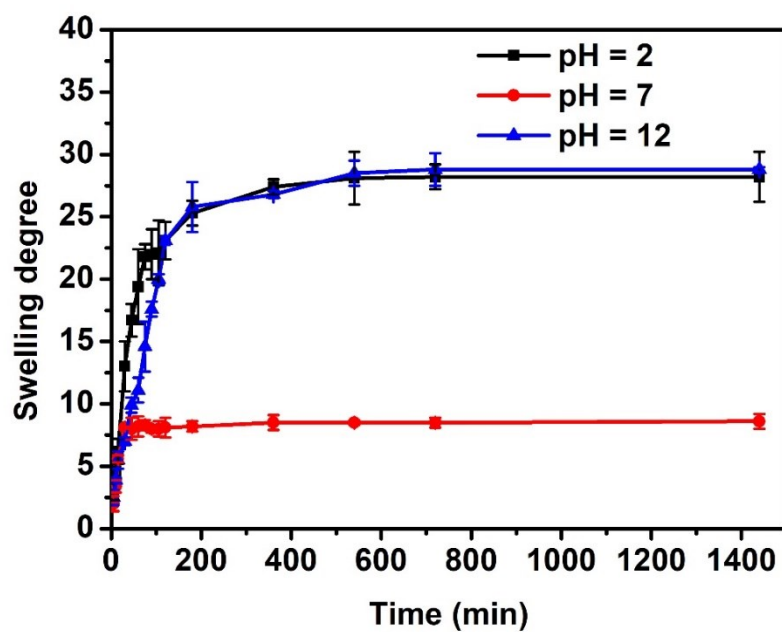


Fig. S2 The kinetic swelling behavior of PLysAA1-4 framework in aqueous solution at pH of 2, 7, and 12.

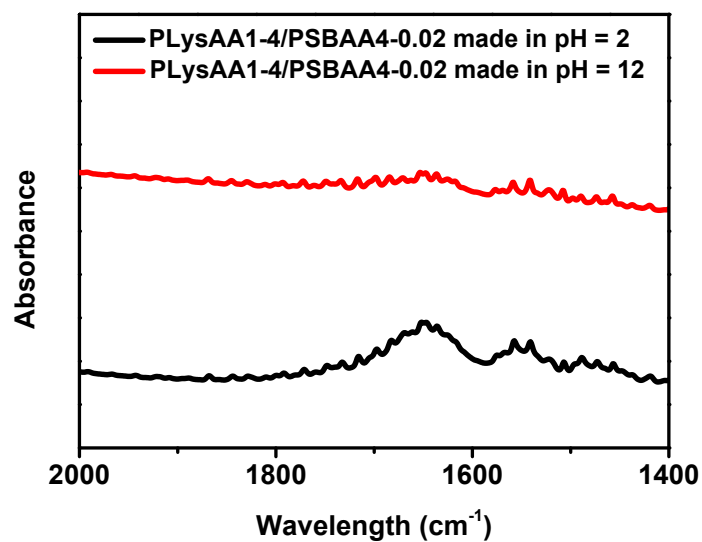


Fig. S3 FTIR spectra of the PLysAA1-4/PSBAA4-0.02 hydrogels under acidic and alkaline fabrication.

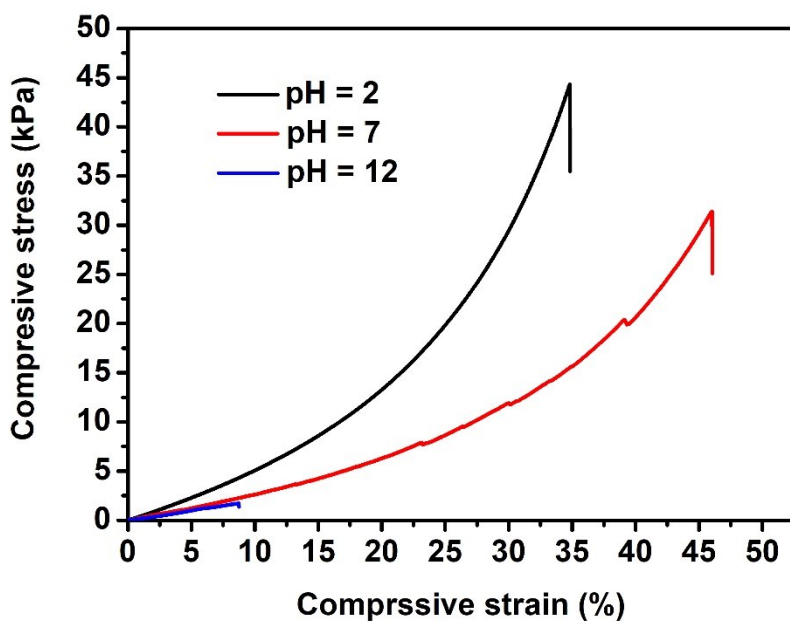


Fig. S4 Compressive stress-strain curves of PLysAA1-4 hydrogels under acidic, neutral, and alkaline fabrication.

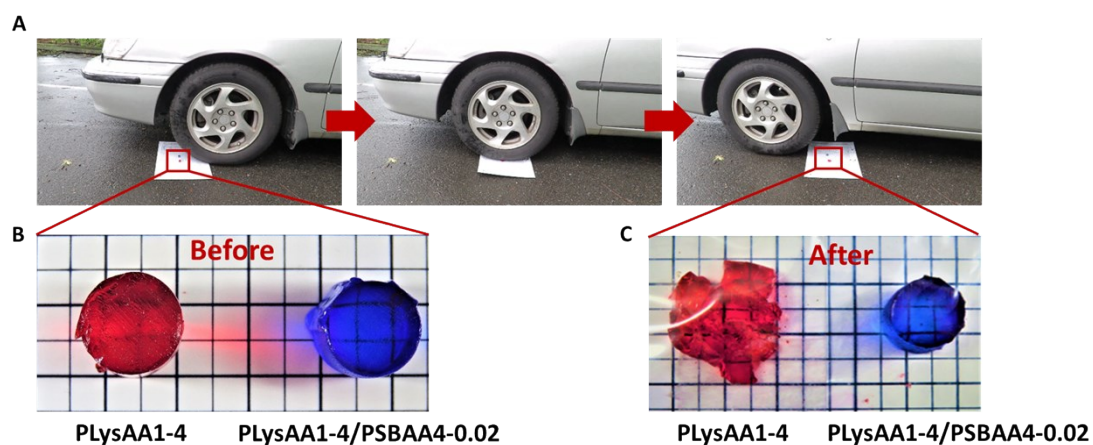


Fig. S5 PLysAA1-4 and PLysAA1-4/PSBAA4-0.02 hydrogels were run over by a car. (A) The process of car run-over the hydrogels. (B) The integrities of hydrogels before the car run-over. (C) The integrities of hydrogels after the car run-over.

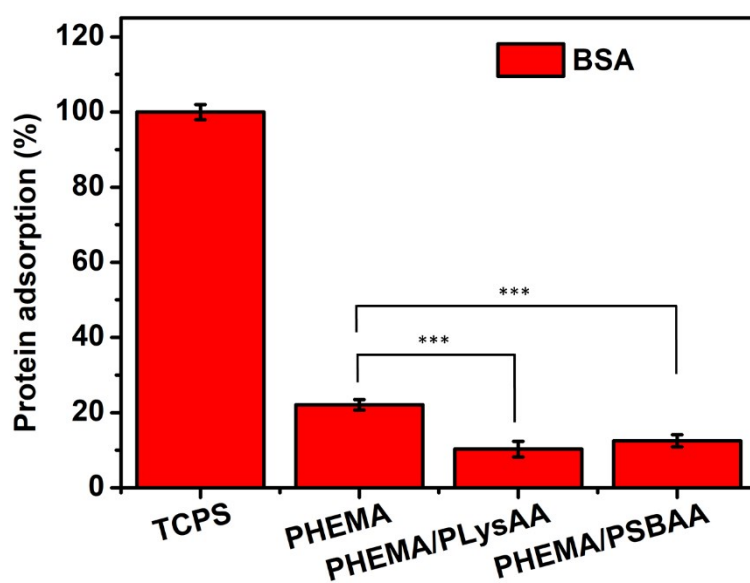


Fig. S6 BSA adsorption on PHEMA, PHEMA/PLysAA and PHEMA/PSBAA with respect to that on TCPS. *** represents $p < 0.001$.

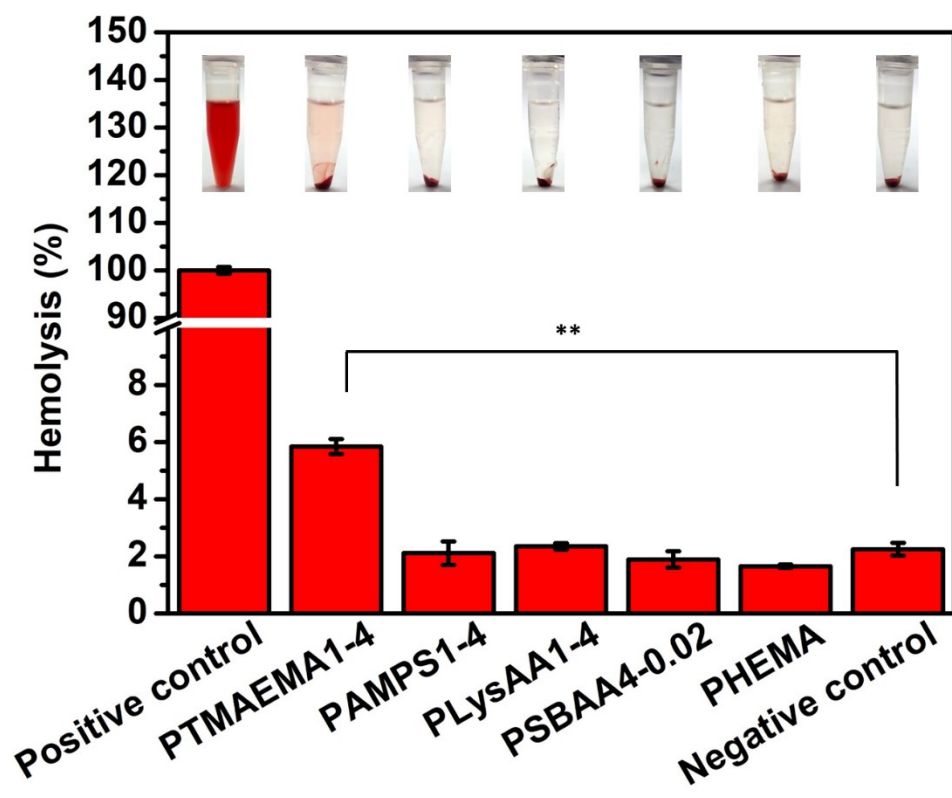


Fig. S7 Hemolysis of RBCs solution in presence of single network hydrogels. ** represents $p < 0.01$.