Supporting Information

Polylactide-based Chiral Porous Monolithic Materials Prepared
Using High Internal Phase Emulsion Template Method for
Enantioselective Release

Xueyong Yong, abc Qisong Hu, Ergang Zhou, Jianping Deng, *bc and Youping Wu*ac

^aState Key Laboratory of Organic-Inorganic Composites, ^bState Key Laboratory of Chemical Resource Engineering, and ^cCollege of Materials Science and Engineering, Beijing University of Chemical Technology, Beisanhuan East Road 15#, Beijing 100029, China.

*E-mail: dengjp@mail.buct.edu.cn (Deng); wuyp@mail.buct.edu.cn (Wu).

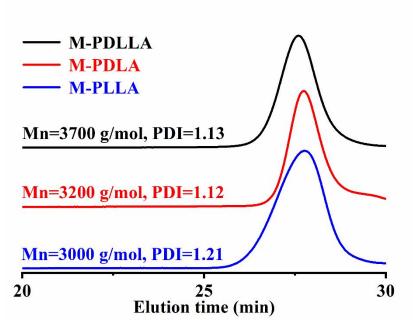


Figure S1. GPC traces of M-PLLA, M-PDLA and M-PDLLA.

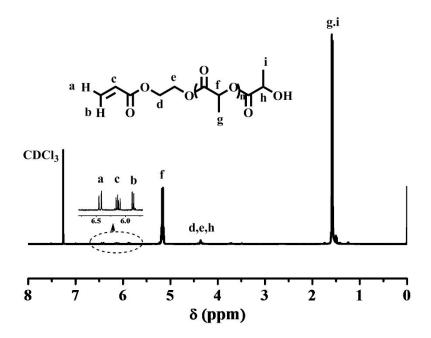


Figure S2. ¹H NMR of M-PLLA.



Figure S3. typical photographs of forming PLLA-based polyHIPE, continuous phase solution (a), HIPE (b) and PLLA-based polyHIPE (c).

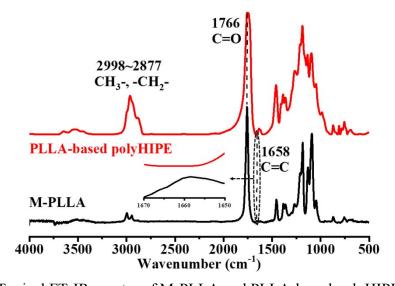
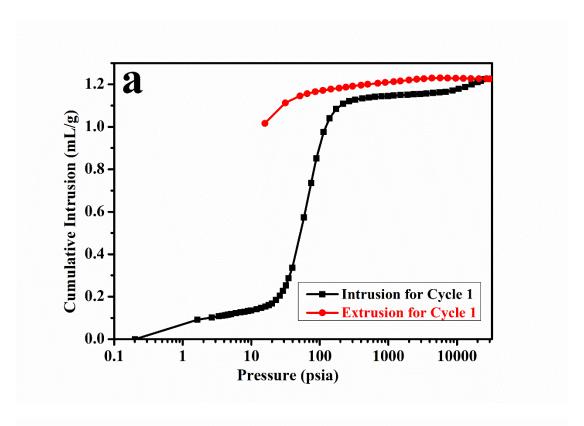


Figure S4. Typical FT-IR spectra of M-PLLA and PLLA-based polyHIPE.



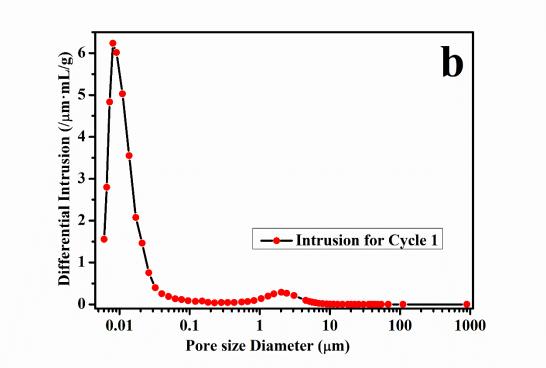


Figure S5. Mercury adsorption/desorption isotherms (a) and pore size distribution (b) of PLLA-based polyHIPE.

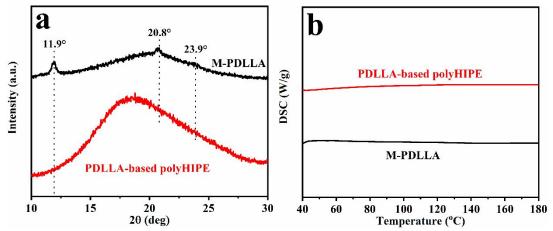


Figure S6. XRD patterns (a) and DSC curves (b) of M-PDLLA and PDLLA-based polyHIPE.

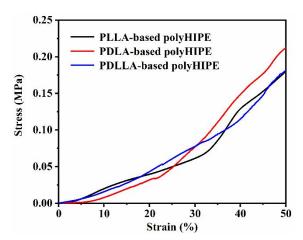


Figure S7. Compressive stress-strain curve of PLLA-based polyHIPE, PDLA-based polyHIPE and PDLLA-based polyHIPE.

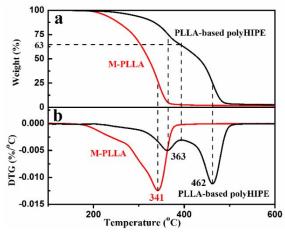


Figure S8. (a) TGA and (b) DTG curves of PLLA and PLLA-based polyHIPE. The test was measured at a scanning rate of 10 $^{\circ}$ C/min in N₂.

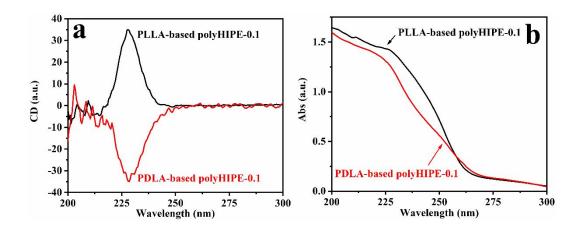


Figure S9. (a) CD and (b) UV-vis spectra of PLLA-based polyHIPE-0.1 and PDLA-based polyHIPE-0.1.



Figure S10. Photomicrographs of MC3T3-E1 cells cultured for 3 days using (a) PLLA-, (b) PDLA- and (c) PDLLA-based polyHIPE.



Figure S11. Photomicrographs of MC3T3-E1 cells cultured for 7 days using (a) PLLA-, (b) PDLA- and (c) PDLLA-based polyHIPE.

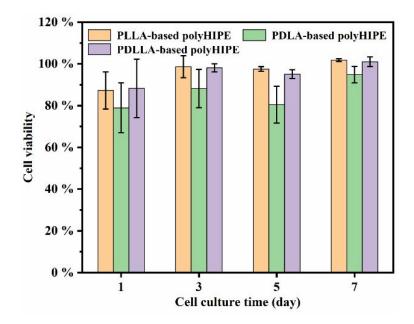


Figure S12. Cell viability of MC3T3-E1 cells for 1, 3, 5 and 7 days with PLLA-, PDLA and PDLLA-based polyHIPE, tested using CCK-8 assay. (Error bars designate means \pm SD for n = 6)

Figure S13. The chemical structure of (+)-cinchonine, (-)-cinchonidine and naproxen.

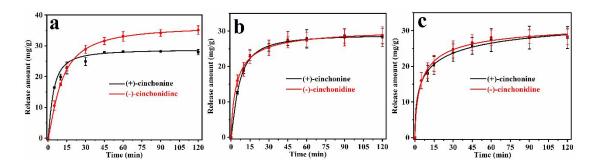


Figure S14. Time-release amount curves of (+)-cinchonine/(-)-cinchonidine from (a) PLLA-based polyHIPE, (b) PDLA-based polyHIPE and (c) PDLLA-based polyHIPE.

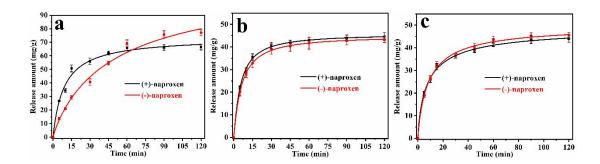


Figure S15. Time-release curves of (+)/(-)-naproxen from (a) PLLA-based polyHIPE, (b) PDLA-based polyHIPE and (c) PDLLA-based polyHIPE.