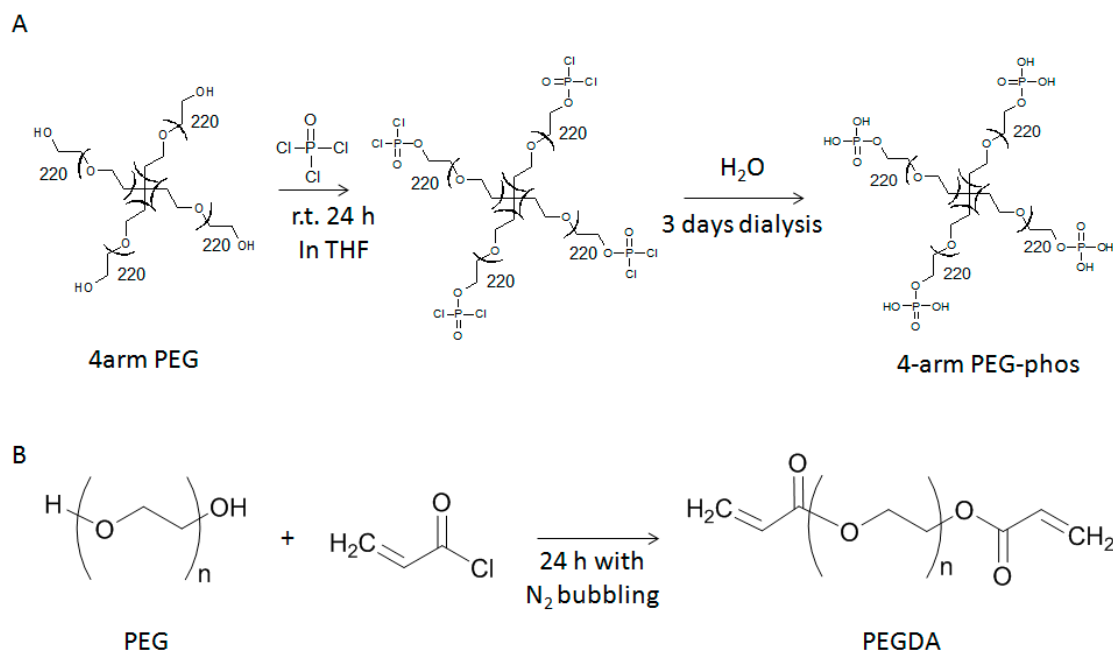


# Supplementary Materials: An Intriguing Method for Fabricating Arbitrarily Shaped “Matreshka” Hydrogels Using a Self-Healing Template

Takeshi Sato, Koichiro Uto, Takao Aoyagi and Mitsuhiro Ebara



Scheme S1. Synthesis of 4-arm PEG-phos (A) and PEGDA (B).

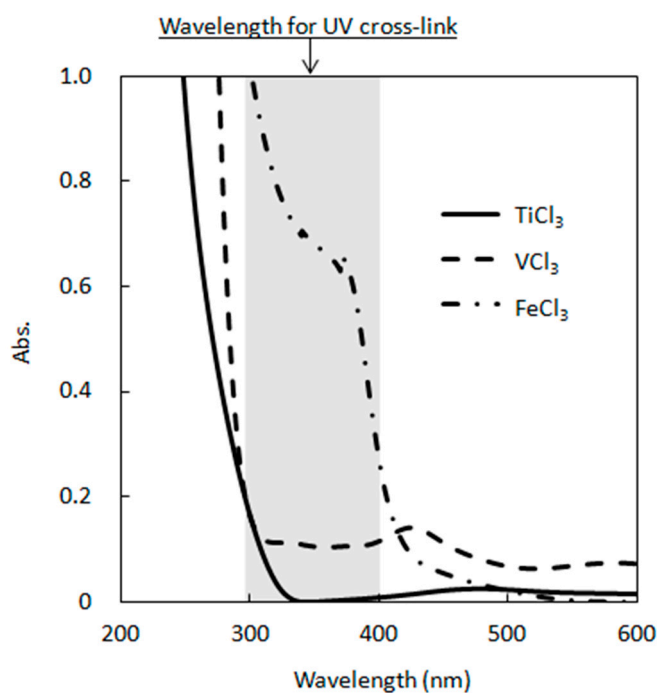
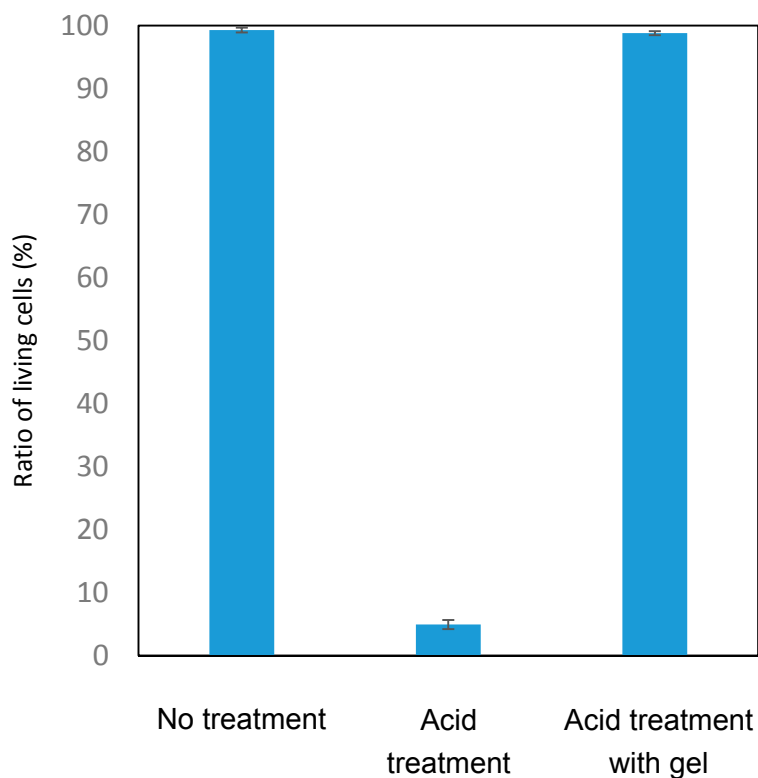


Figure S1. Absorbance spectra of FeCl<sub>3</sub>, TiCl<sub>3</sub> and VCl<sub>3</sub> aqueous solution ( $8.3 \times 10^{-3}$  M each). FeCl<sub>3</sub> solution shows the absorbance wavelength of 300–400 nm. This wavelength range is utilized for UV crosslinking of PEGDA gel [1,2].



**Figure S2.** Cell viabilities obtained from live/dead assays.

## References

1. Yang, J.; Vitale, A.; Bongiovanni, R.; Nie, J. Synthesis and characterization of siloxane photopolymers used for microfluidic devices. *New J. Chem.* **2015**, *39*, 2532–2540.
2. Calldorera-Moore, M.; Kang, M.K.; Moore, Z.; Singh, V.; Sreenivasan, S.V.; Shi, L.; Huang, R.; Roy, K. Swelling behavior of nanoscale, shape- and size-specific, hydrogel particles fabricated using imprint lithography. *Soft Matter* **2011**, *7*, 2879–2887.