

# **Trimethylamine N-oxide (TMAO)-grafted silicone hydrogels for anti-fibrosis**

Xiangyu Dang<sup>a</sup>, Chongyu Zhu<sup>a,\*</sup>, Zhize Chen<sup>a,\*</sup>

- a. Key Lab of Sustainable Low-carbon Technologies for Textile Dyeing and Finishing, Ministry of Education, College of Chemistry and Chemical Engineering, Donghua University, Shanghai 201620, China

\*Corresponding author.

E-mail address: czhu@dhu.edu.cn

E-mail address: chenzhize@dhu.edu.cn

Table S1 Elemental analysis results

TMAO <sub>50</sub> -Si	C:46.81%	H:8.85%	N:0.05%
TMAO <sub>60</sub> -Si	C:48.27%	H:9.01	N:3.76%
TMAO <sub>70</sub> -Si	C:46.03%	H:9.25	N:4.23

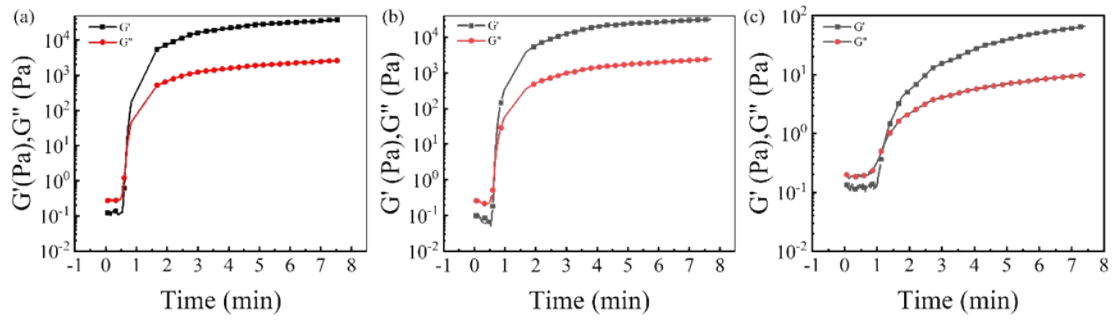


Fig. S1. Rheological property tests, (a) TMAO<sub>50</sub>-Si, (b) TMAO<sub>60</sub>-Si, (c) TMAO<sub>70</sub>-Si

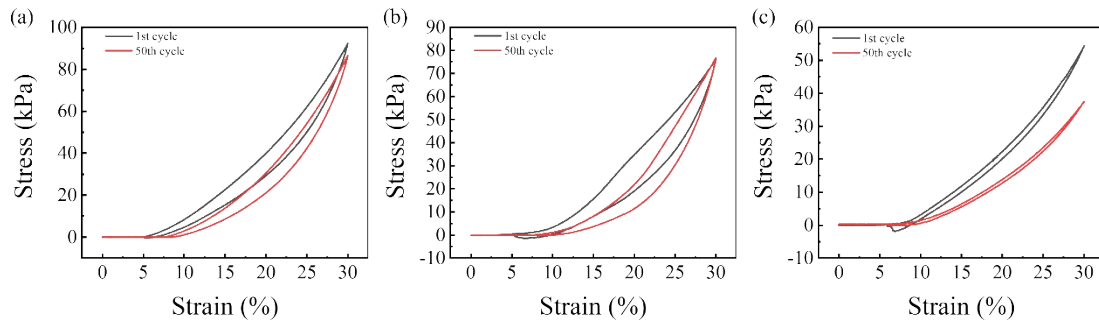


Fig. S2. Fatigue resistance test, (a) TMAO<sub>50</sub>-Si, (b) TMAO<sub>60</sub>-Si, (c) TMAO<sub>70</sub>-Si

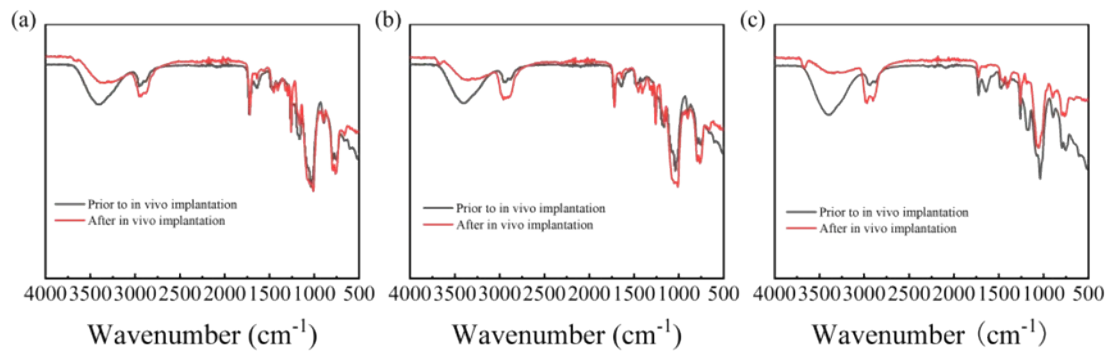


Fig. S3. FT-IR spectra before and after in vivo extraction

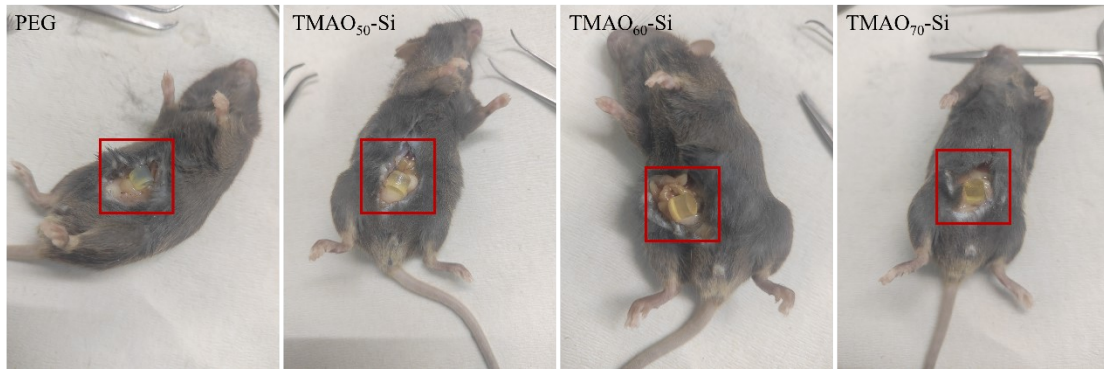


Fig. S4. Photos of hydrogel samples after in vivo retrieval.

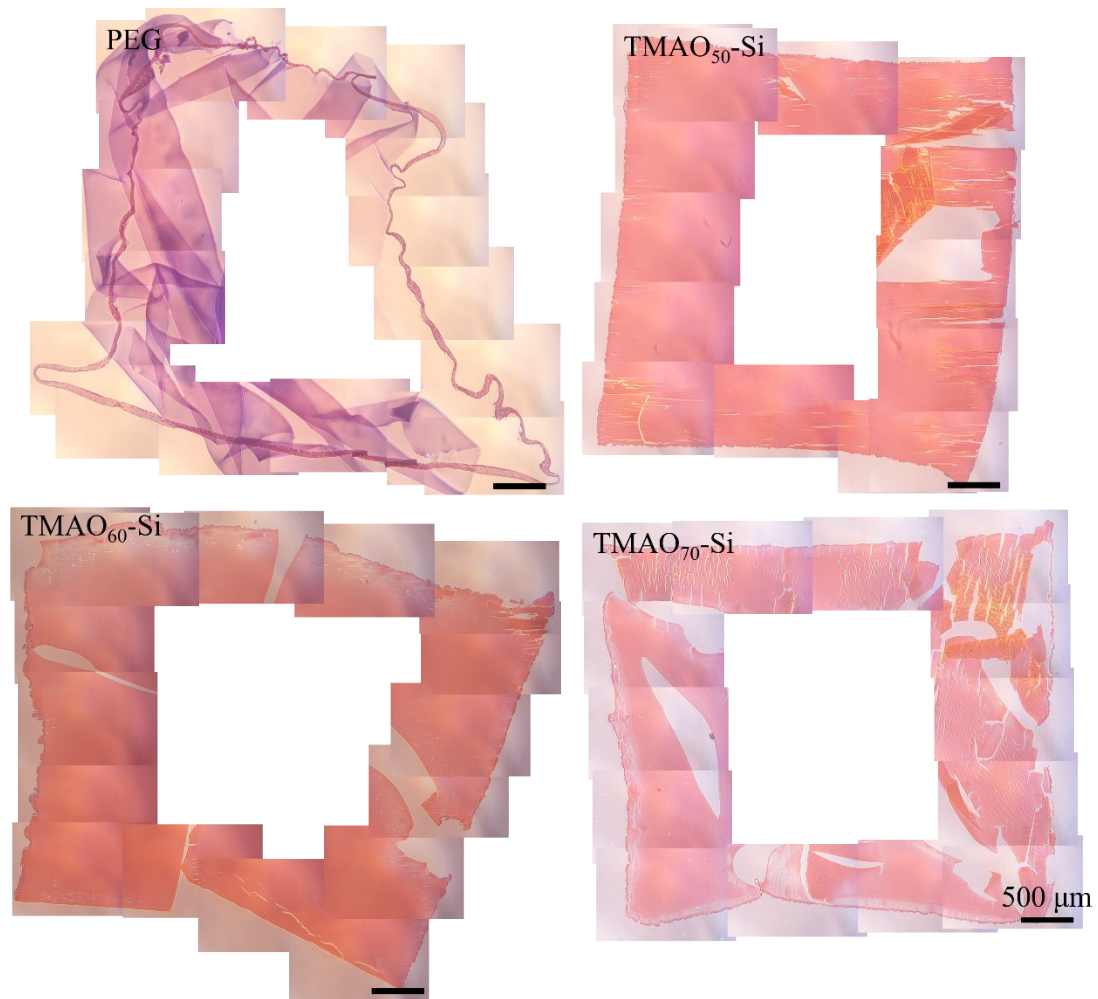


Fig. S5. H&E staining images of hydrogels at 14 days after subcutaneous implantation in mice.

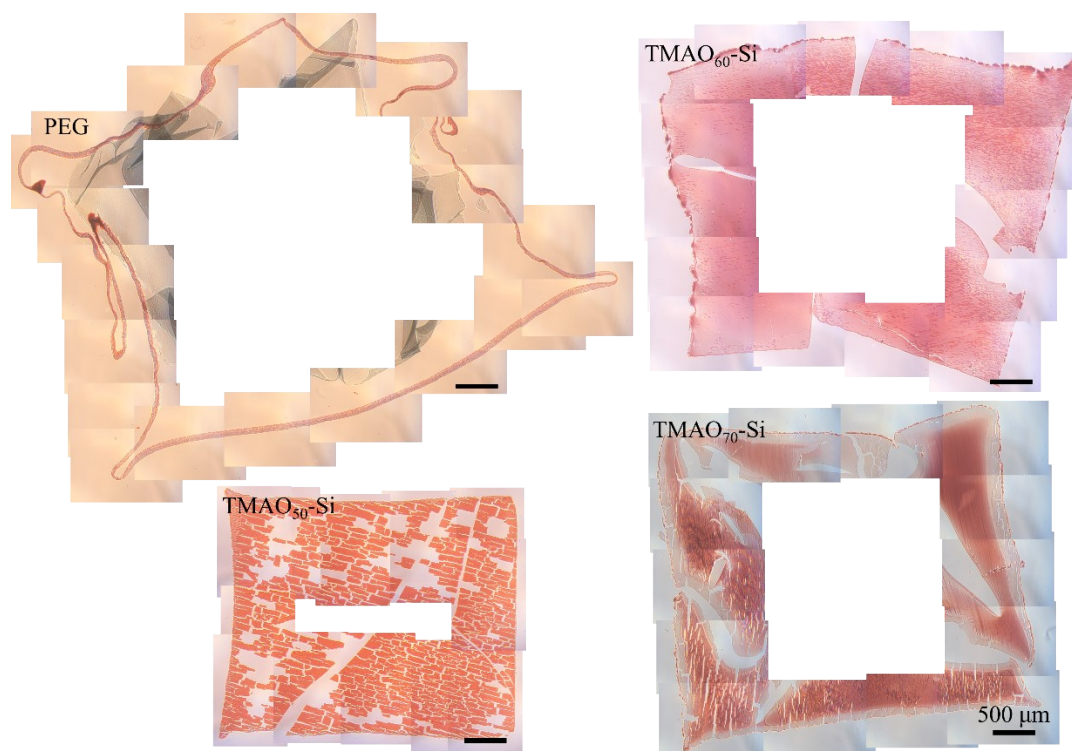


Fig. S6. Masson staining images of the hydrogel at 14 days after subcutaneous implantation in mice.

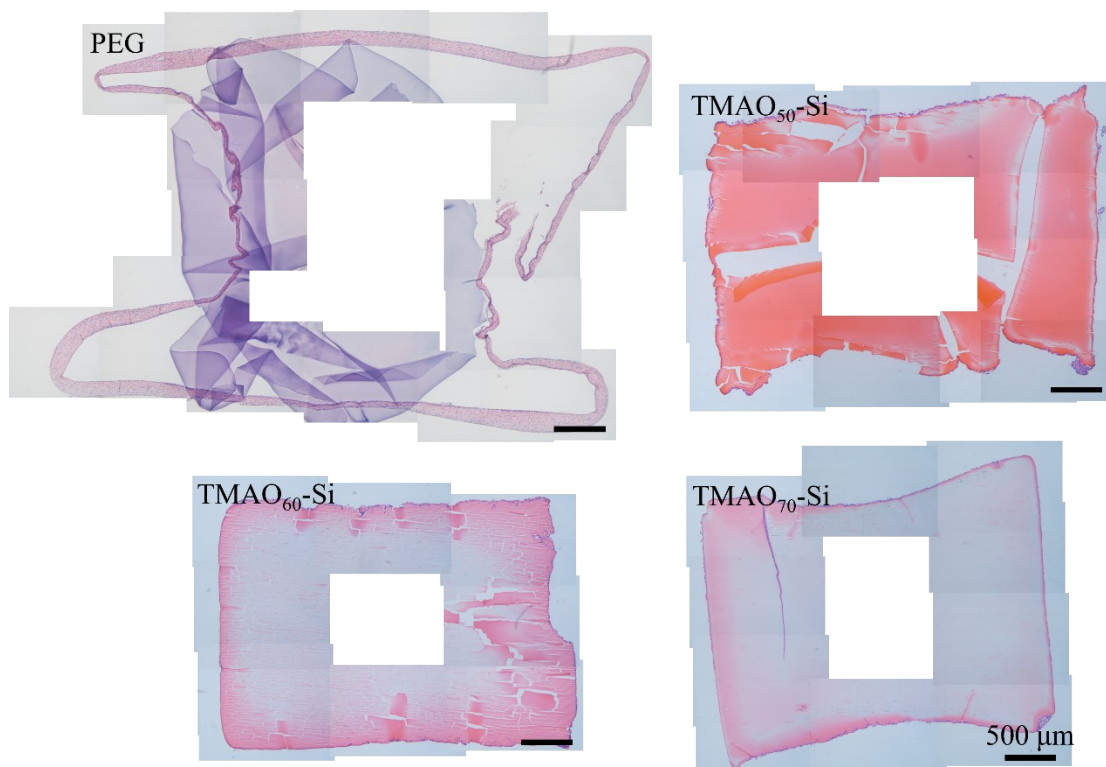


Fig. S7. H&E staining images of the hydrogel at 28 days after subcutaneous implantation in mice.

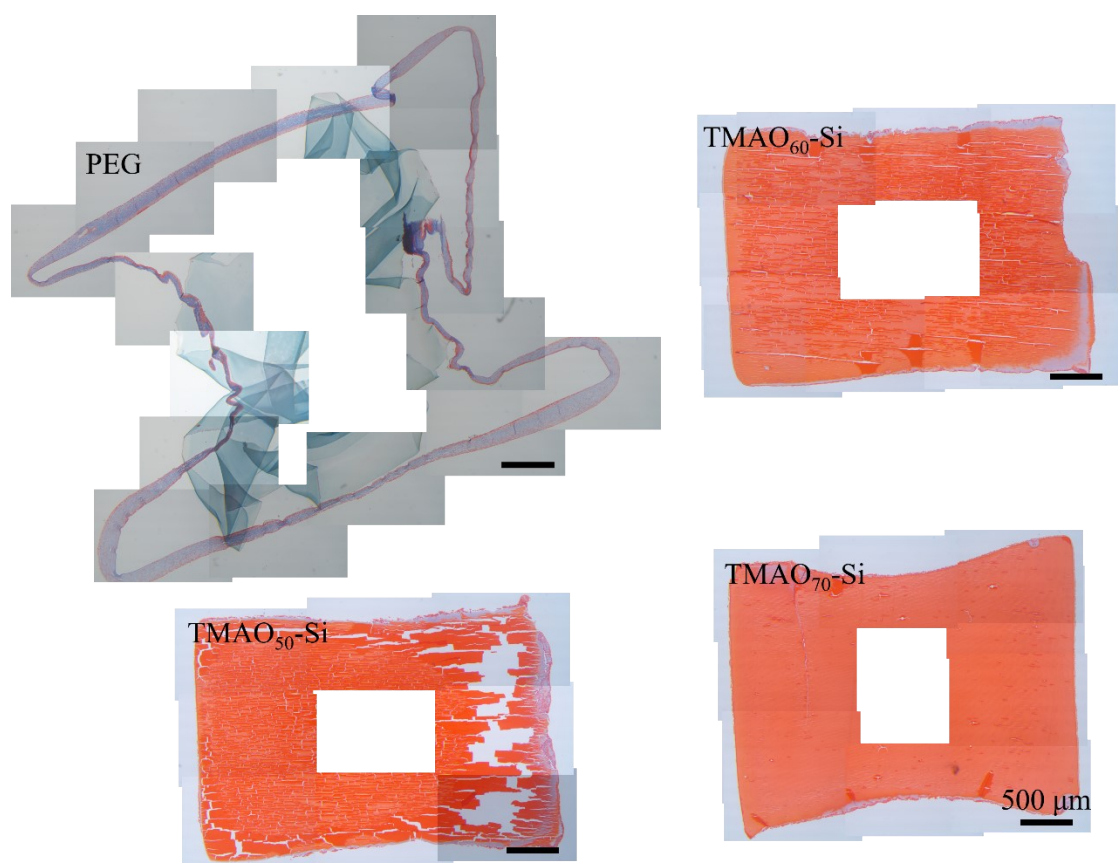


Fig. S8. Masson staining images of the hydrogel at 28 days after subcutaneous implantation in mice.