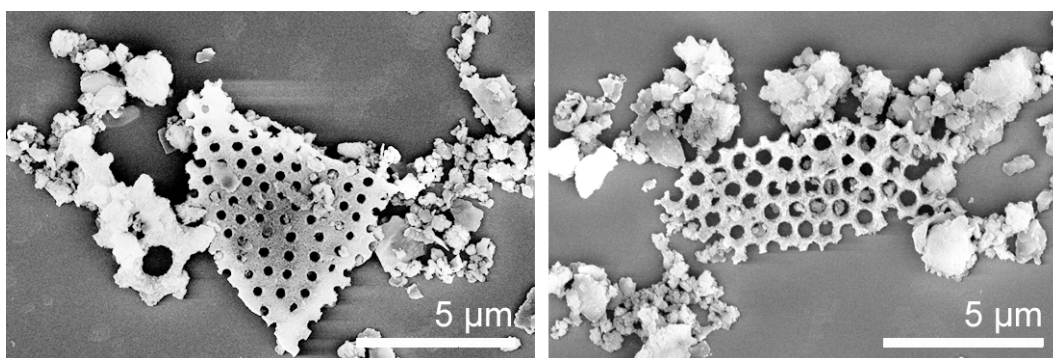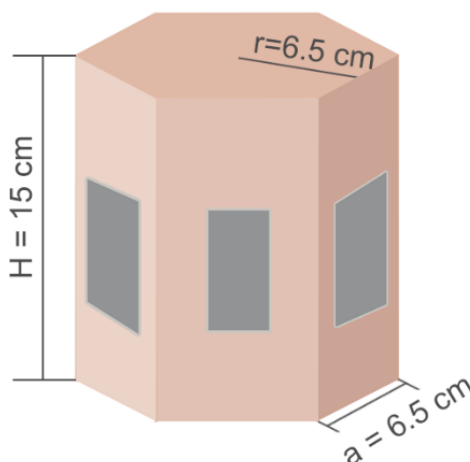# Supplementary Materials

Combined Effects of Color and Elastic Modulus on Antifouling Performance: A Study of Graphene Oxide/Silicone Rubber Composite Membranes

Figure S1. SEM images of diatoms (*Triceratium* sp.) on silicon slice after culturing for 2 days.

Figure S2. Specimens were fixed to a hexagonal prism.

The linear velocity (*V*) near the specimens is determined by *V*= 2 × *π* × *r* × *ω*, where *ω* is the rotation speed. In our test, *ω* = 500 rad/min. Therefore, *V* = 3.4 m/s.

The Reynolds number (*Re*) is an important dimensionless quantity in fluid mechanics that helps help predict the flow patterns in different fluid flow situations. *Re* is determined by the following equation:

$$Re = \frac{\rho V d_H}{\mu} \qquad (1)$$

where

$$d_H = \frac{2ab}{a+b} \qquad (2)$$

Table S1. Nomenclature and values.

	Nomenclature	Value
ρ	water density	0.997 g/cm^3 (25 °C)
V	rate of water flow	3.4 m/s
d_H	hydraulic diameter of rectangular tube (fully filled)	
μ	dynamic viscosity	0.00089 Ns/m^2（25 °C）
a, b	width and height of the section of the tube in test area	a = 6.5 cm and b = 15 cm

The results show that Re = 3.45 × 10^5, which is much bigger than 4000; hence, there is turbulent flow in the test area, namely it is a turbulence generator.
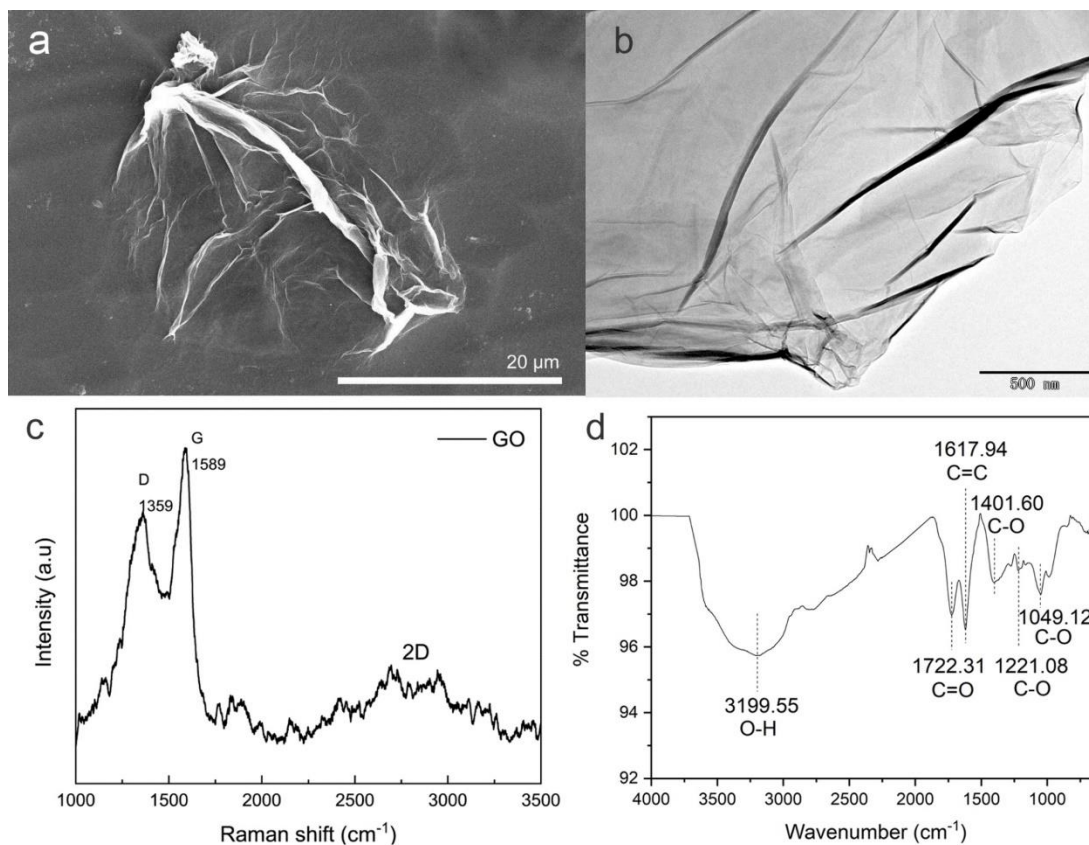
Figure S3. (**a**) SEM image of GO nanosheets, (**b**) TEM image of GO nanosheets, (**c**) Raman spectra of GO nanosheets, (**d**) FTIR spectra of GO nanosheets.

Table S2. Elemental compositions of membranes.

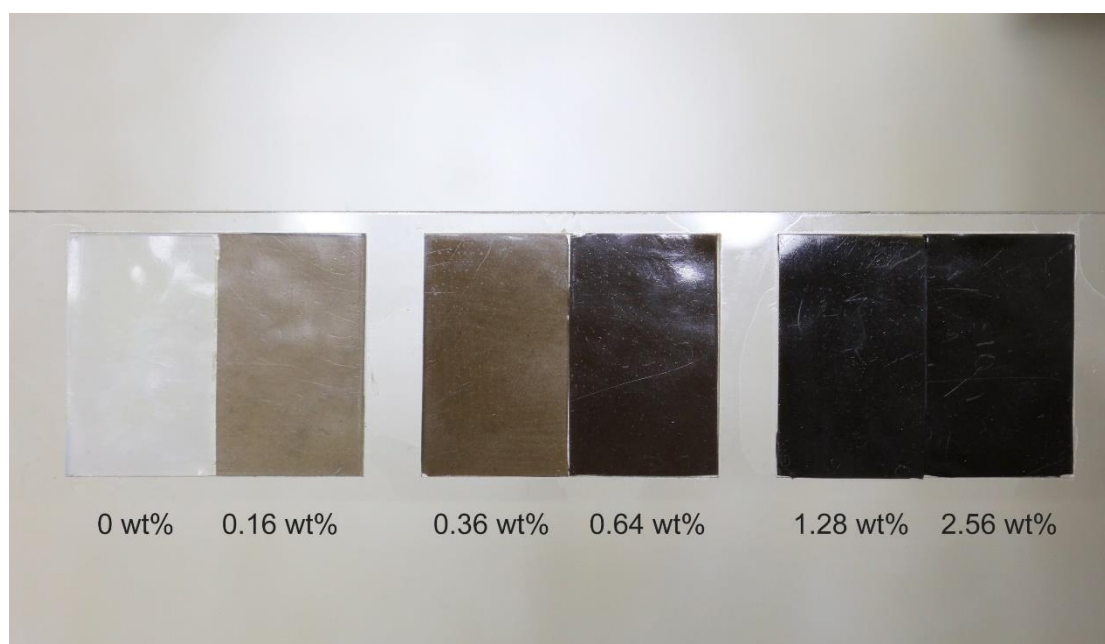| Elements/Specimens	0	0.16	0.36	0.64	1.28	2.56
C wt %	30.02	47.99	57.88	58.02	65.45	80.43
O wt %	33.43	38.21	32.11	36.16	32.66	18.94
Si wt %	36.55	13.8	10.02	5.81	1.89	0.63

Figure S4. Colors of the membranes with different GO contents.
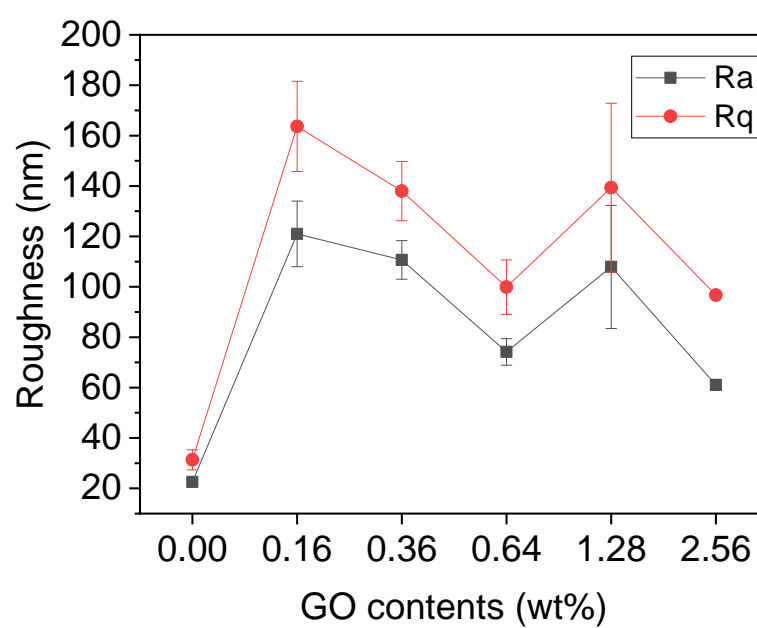
Figure S5. Roughness or GOSR membranes with different GO contents.