

Supporting information

Thrombin Immobilized Polydopamine-Diatom Biosilica for Effective Hemorrhage Control

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Fibrinogen activation in Platelet-poor plasma.

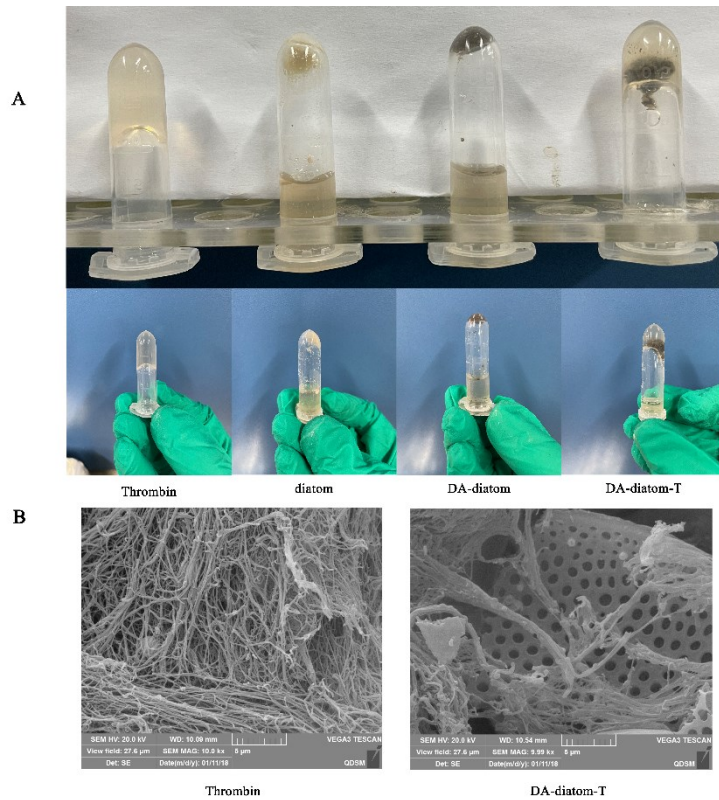


Figure S1. (A) The photo of diatom, DA5-diatom, DA5-diatom-T and thrombin after mixed with Platelet-poor plasma. (B) The SEM images of DA5-diatom-T and thrombin after mixed with fibrinogen solution.

Plasma viscosity test

DA-diatom-T, DA-diatom and diatom (5 mg/mL) were mixed with Rabbit platelet-poor plasma (containing sodium citrate anticoagulant). To evaluate the plasma viscosity,, the viscometry, modes of a rheometer (Discovery Hybrid Rheometer HR 10, TA Instruments, Ltd.) was applied. A cone plate 2°/40 mm was used for conducting the rheological tests at a shear rate of 0.01 s^{-1} , and the gap was set to $100 \mu \text{ m}$. Plasma without material was used as a control group.

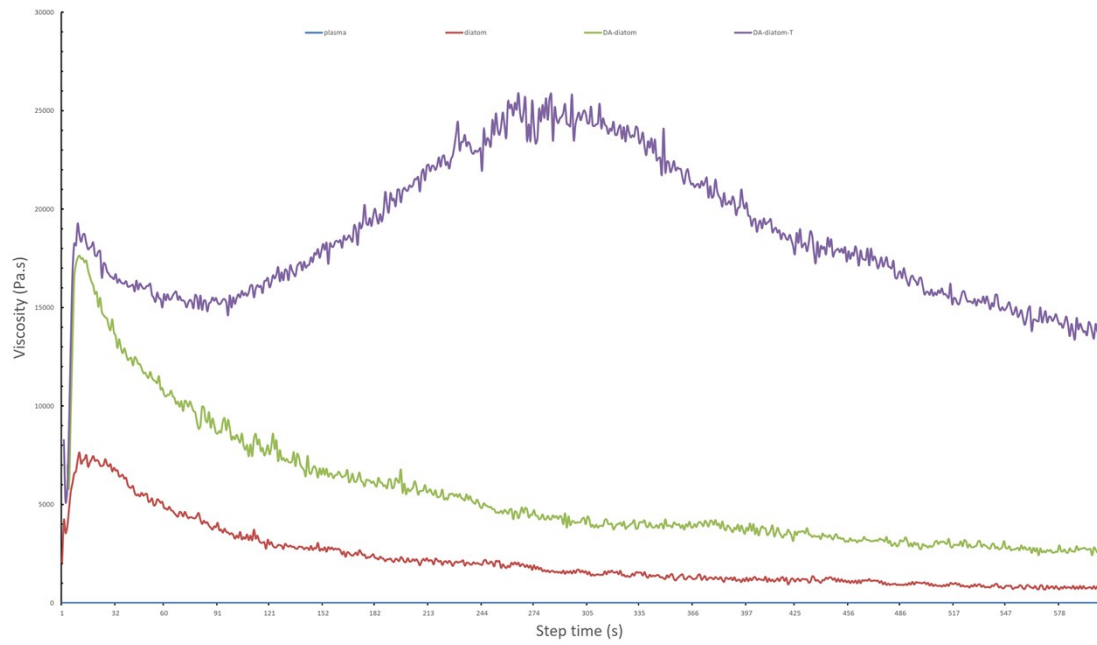


Figure S2. The viscosity of plasma after mixed with diatom, DA-diatom or DA-diatom-T.