## A simple mechanical agitation method to fabricate chitin nanogels directly from chitin solution and subsequent surface modification

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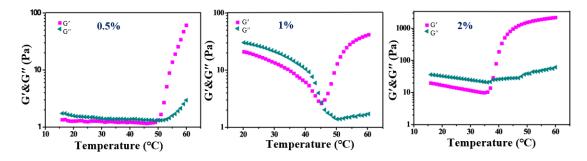


Fig. S1 Sol-gel transition temperature of chitin solution (0.5%, 1%, 2%).

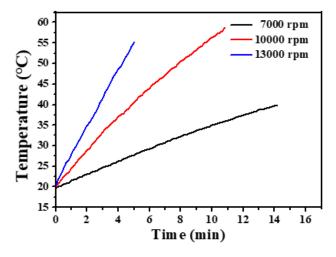
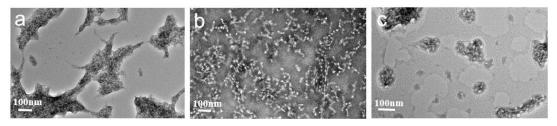


Fig.S2 The temperature increase along with time under different stirring speed.



**Fig. S3** HR-TEM images of CNGs obtained under different speed of (a) 7000 rpm, (b) 10000 rpm, (c) 13000 rpm, respectively.

**Table S1** The zeta potentials at pH 7 and the yields of DE-CNGs and CO-CNGs under different conditions.

Reaction condition	Zeta(mV)	Yield(%)
DE-CNGs(1h)	23.3	67.3
DE-CNGs(2h)	24.6	46.8
DE-CNGs(3h)	26.7	35.9
CO- CNGs(5mmol)	-23.5	56.3
CO-CNGs(10mmol)	-25.6	20
CO-CNGs(15mmol)	-49.7	3.6