Fluorescent carbonized polymer dots prepared from sodium alginate based on CEE effect

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Figure S1. Fluorescent lifetime of SG-CPDs.



Figure S2. Photo of photoluminescence of SG-CPDs in different pH environments.



Figure S3. Photo of photoluminescence of SG-CPDs after adding calcium ion (mL).



Figure S4. The relationship between the tensile strengths of the films and the amount of SG-CPDs in the film before and after irradiation.