



## Supplementary Materials

# Enhanced Stability and Mechanical Properties of a Graphene–Protein Nanocomposite Film by a Facile Non-Covalent Self-Assembly Approach

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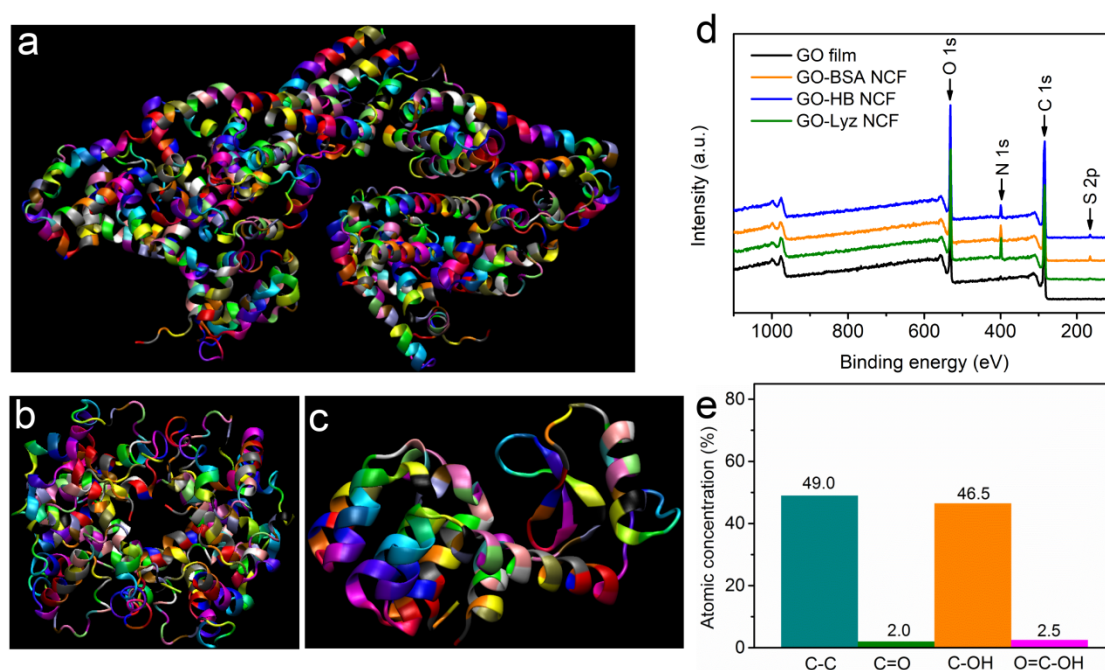
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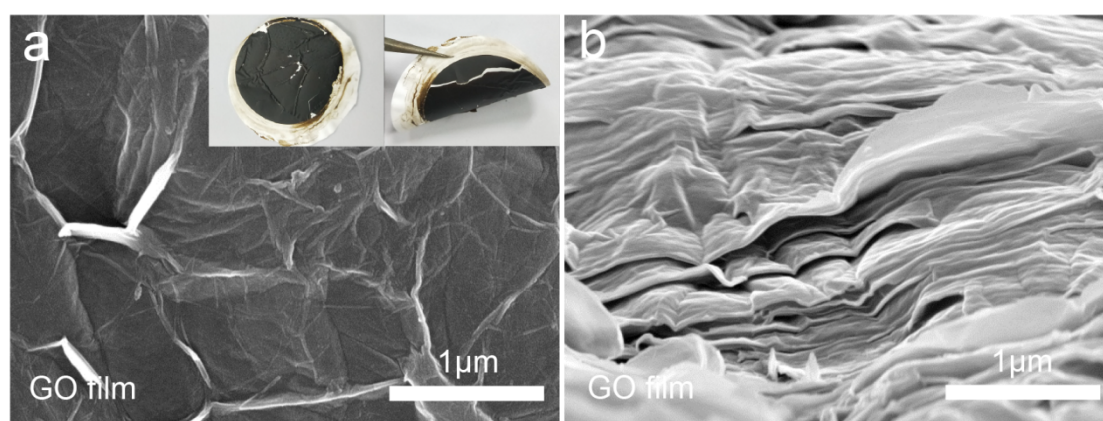
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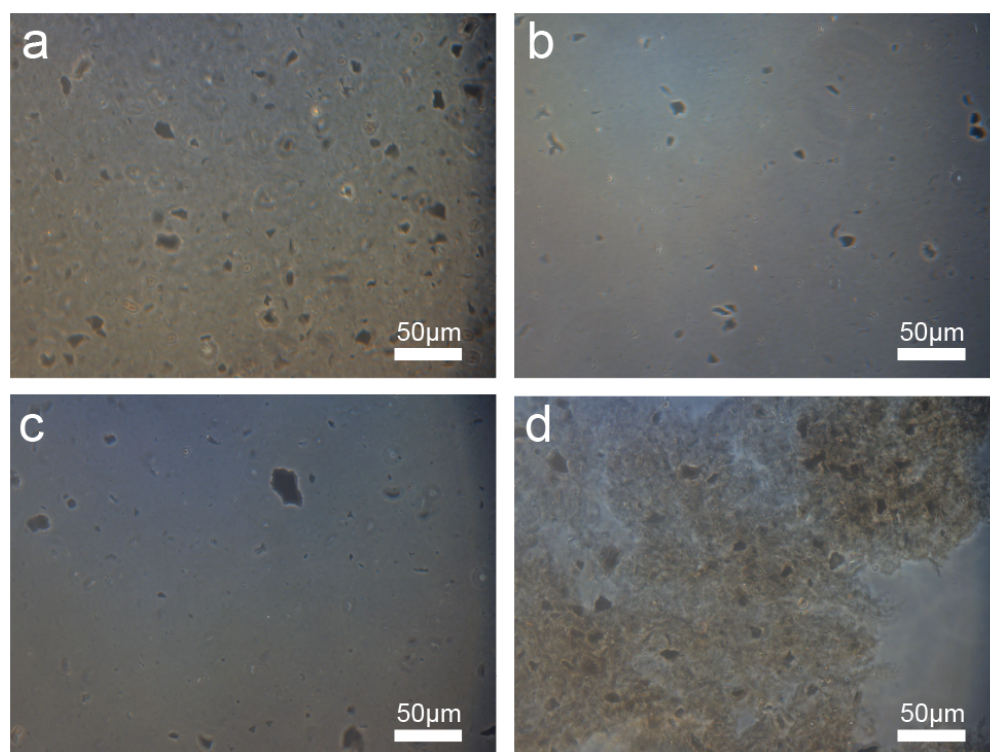
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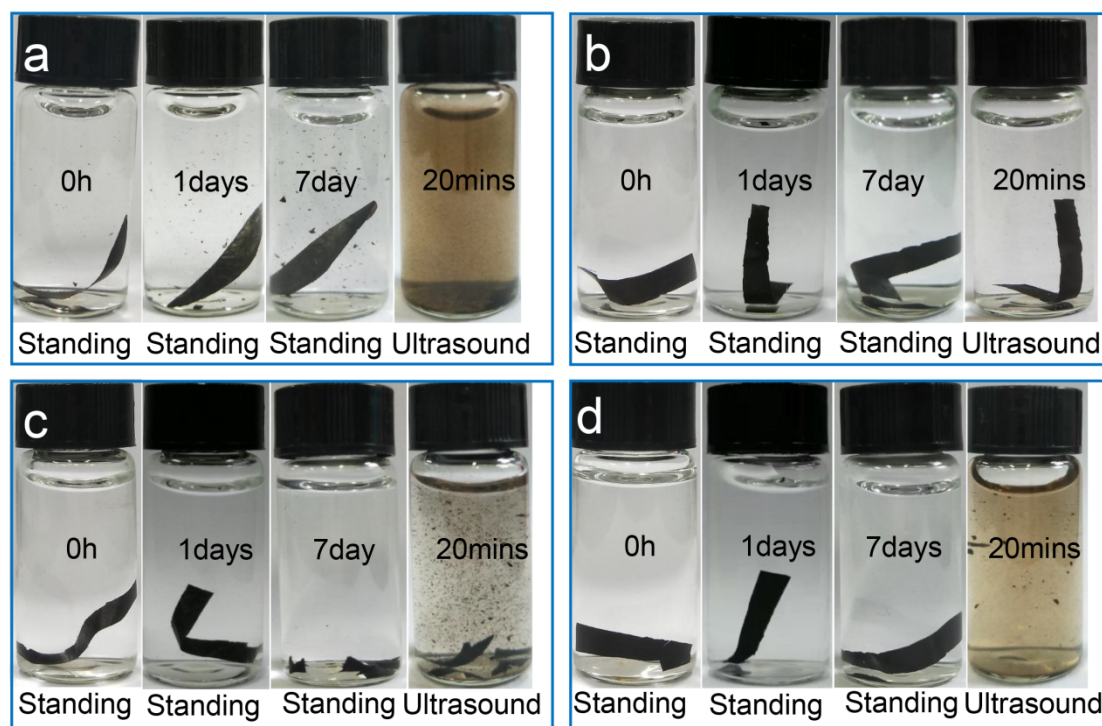
**Figure S1.** The crystal structures of BSA (a, PDB code 4F5S), HB (b, PDB code 1FN3) and Lyz (c, PDB code 253L) with the style of newcartoon; wide scan of XPS survey spectra of films (d); atomic concentration of C in GO film (e).



**Figure S2.** SEM images of surface (a), photographs with uniform diameter of about 5 cm (insets of a) and internal cross section (b) of GO film.



**Figure S3.** Optical microscope photographs of GO solution (a), GO-BSA compound solution (b), GO-HB compound solution (c) and GO-Lyz compound solution (d).



**Figure S4.** The stability of GO film in aqueous (a), HCl (b), NaOH (c) and NaCl solution (d) with different treatment at room temperature.