

Supplementary information:

Figure S1: Representative transmission electron microscopy image of oxidized graphene oxide nanoribbons treated with lignin peroxidase, veratryl alcohol, and hydrogen peroxide after 72 hours depicting structural degradation (fragmentation of graphene sheets).

Figure S2: Representative transmission electron microscopy images of oxidized graphene oxide nanoribbons (GONRs) treated with lignin peroxidase and hydrogen peroxide in the absence of veratryl alcohol after 0, 24, 72, and 96 hours. Black arrows in (B, C, D and E) point to a few representative holes. Red arrow in (E) indicates the inner pristine layer of GONRs.

Figure S3: Representative transmission electron microscopy image of reduced graphene oxide nanoribbons treated with lignin peroxidase and hydrogen peroxide in the absence of veratryl alcohol after 0 and 96 hours. No structural degradation was observed.

Figure S1:

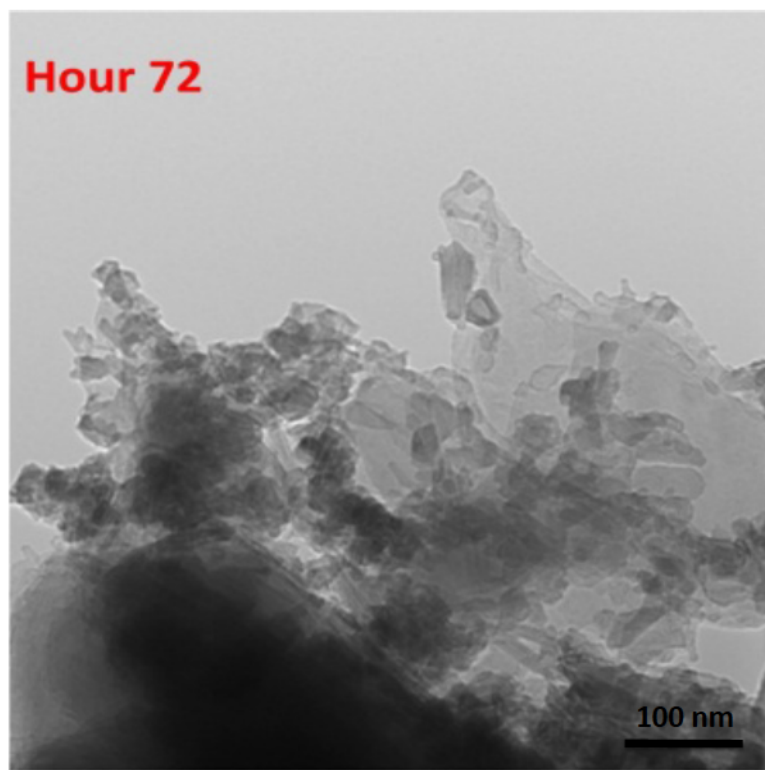


Figure S2 A:

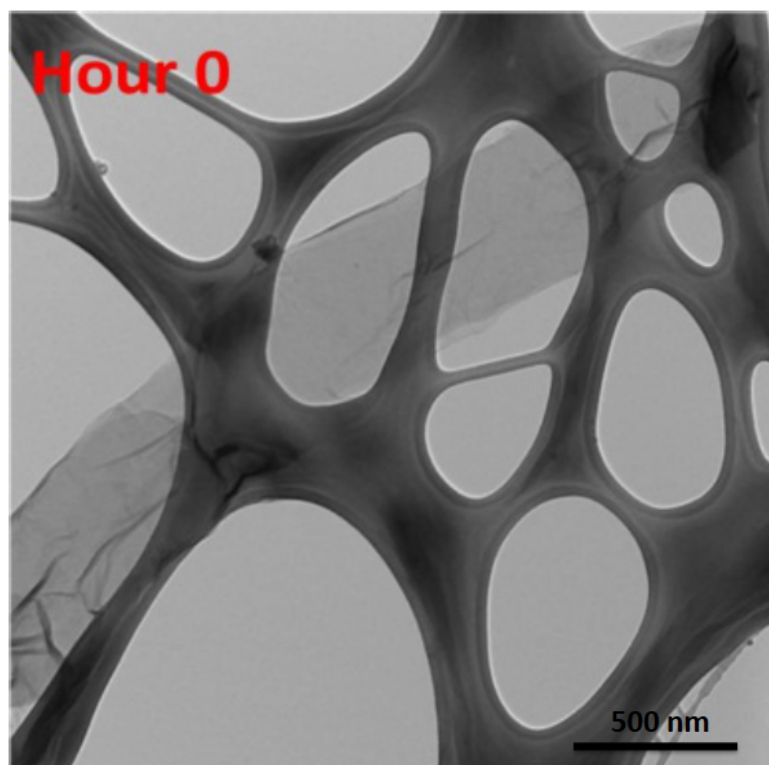


Figure S2 B:

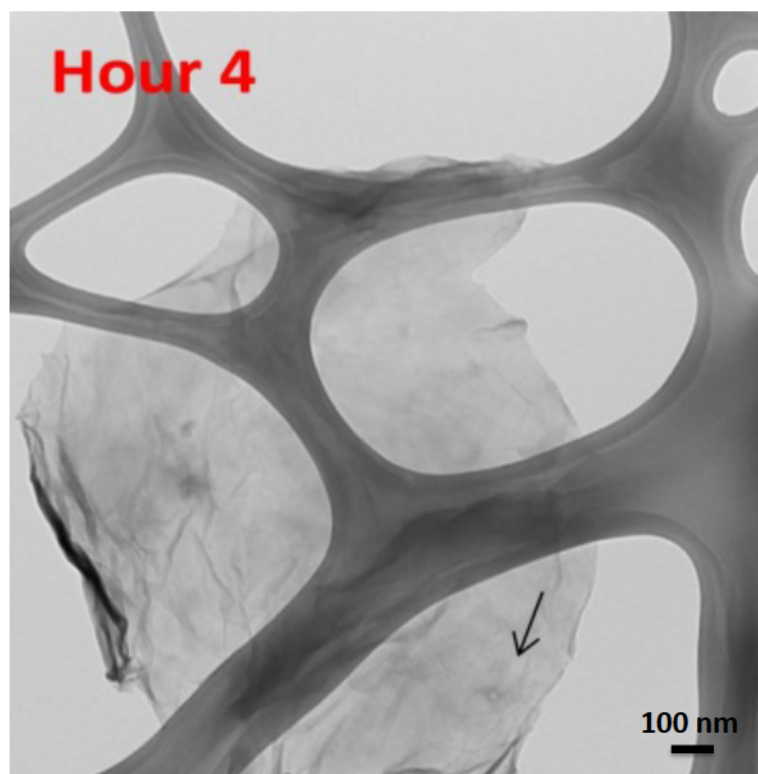


Figure S2 C:

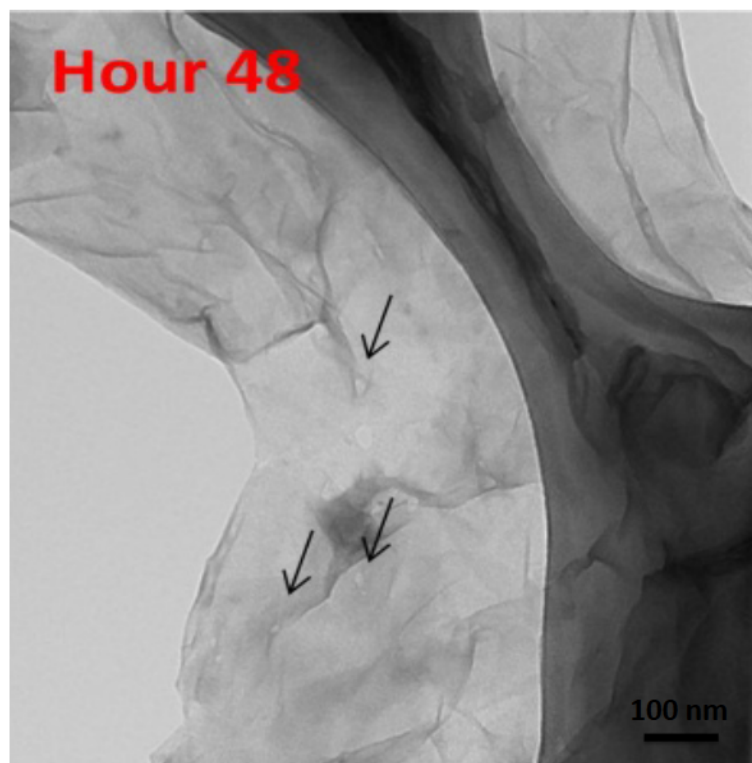


Figure S2 D:

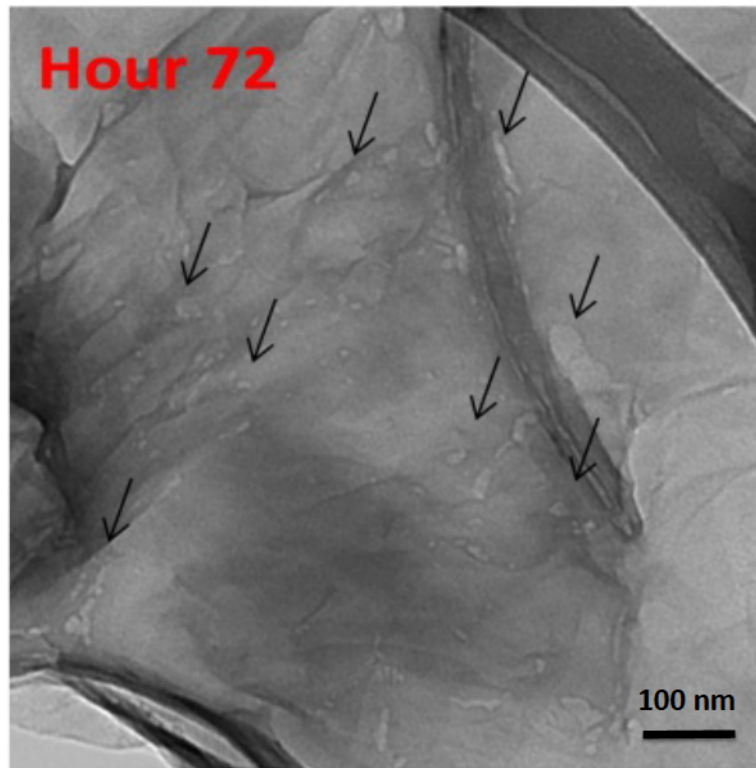


Figure S2 E:

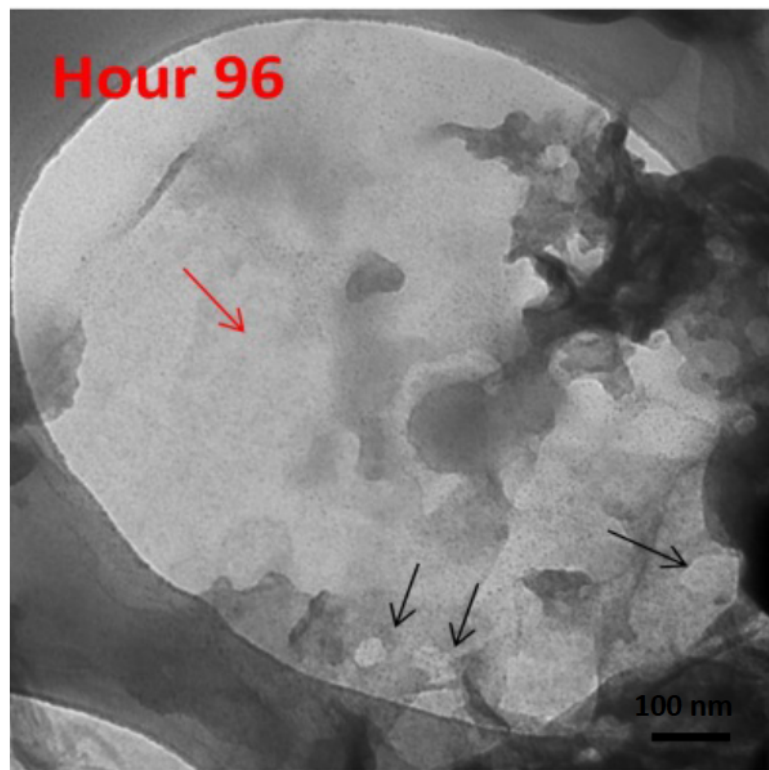


Figure S3 A:

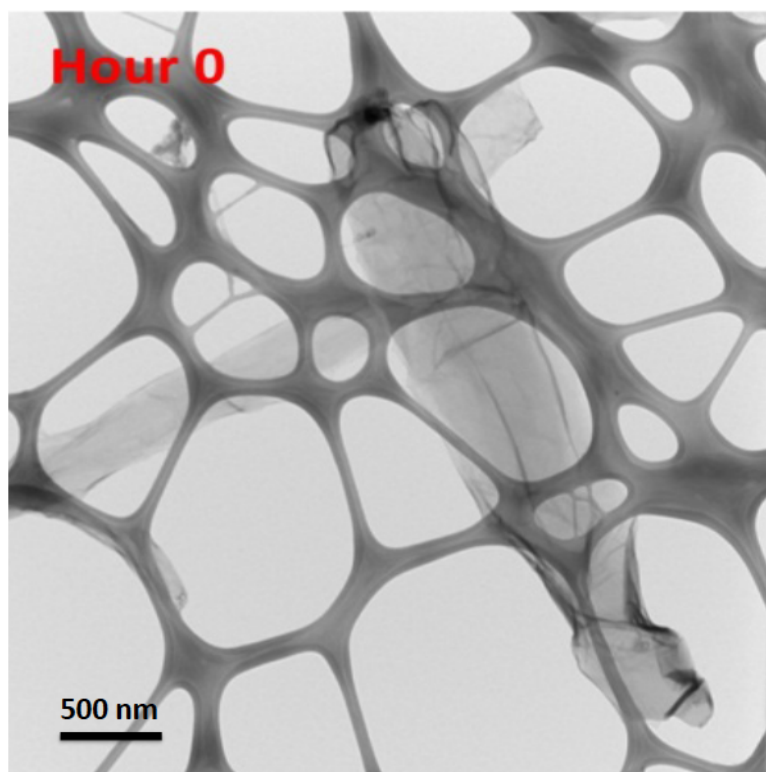


Figure S3 B:

