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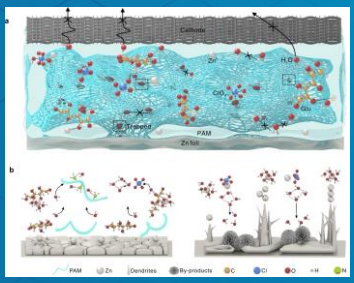
Science Island Express

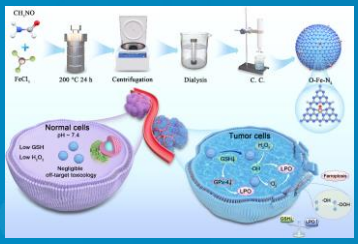
The *Science Island Express* delivers the most recent big things happening at HFIPS.

MATERIAL



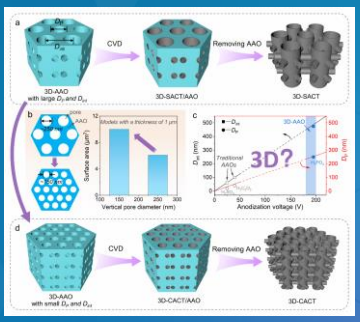
A hydrogel electrolyte formula is shown to bond with water molecules, while the zincophilic glucose preferentially regulate Zn^{2+} solvation. The multifunctional hydrogel structure can effectively disrupt the intrinsic H-bond network and inhibit the interface side-reactions induced by active water.

BIOLOGY



HFIPS researchers develop uniformly dispersed and favorable biosafety profile graphitic carbon nitride quantum dots immobilized with Fe-N_4 moieties modulated by axial O atom (denoted as O-Fe-N_4) for converting H_2O_2 into $^1O_2$ via Russell reaction, without introducing external energy.

TECHNIQUE



A simple technique is achieved to finely adjust the vertical-pore diameter and inter-spacing in three-dimensional nanoporous anodic aluminum oxide (3D-AAO) template, and 3D compactly arranged carbon tube (3D-CACT) nanoarrays was created as electrodes for symmetrical EDLCs using nanoporous 3D-AAO template-assisted chemical vapor deposition of carbon.

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