

Materials for biology and medicine

This illustration depicts a cross-section of a blood vessel, highlighting the process of oxidative stress and inflammation. Inside the vessel, red blood cells are shown, along with various reactive oxygen species (ROS) and reactive nitrogen species (RNS) such as OH , HOCl , $\text{O}_2^{\cdot-}$, $^1\text{O}_2$, and H_2O_2 . A glucose meter on the left indicates a high blood sugar level of 210 mg/dL. A bottle of insulin is also present, suggesting a therapeutic intervention. The vessel wall shows signs of damage and inflammation, with a large, irregular lesion. Outside the vessel, various cellular components are shown, including a virus, a cell, and a protein structure.



ROYAL SOCIETY
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Application of nanomaterial-based fluorescent probes for diabetes detection and care triggered by reactive oxygen species