

Supporting Documents

Application of Reduced Graphene Oxide (rGO)

- Solar Cell
 - rGO could facilitate as efficient electrodes neither photoanode nor counter electrode to improve their efficiency performance.
- Fuel Cell
 - rGO that only permits protons transfer to cathode from anode, which would improve the efficiency and lifetime of fuel cell.
- Supercapacitors
 - rGO supercapacitors could charge and discharge in seconds and maintain all over tens of thousands of charging cycles.
- Wind Turbines
 - rGO could improved the efficiency of turbines, reducing the maintenance cost with more power output.
- Automotive
 - With being over 200 times stronger than steel property, rGO potentially replaced carbon fiber, steel, and aluminium components of vehicles as well as interior of car.
- Sensors
 - rGO have large surface-to-volume ratio, unique optical properties, excellent electrical conductivity, high carrier mobility and density, that can be greatly beneficial for sensor.
- Water Desalination
 - rGO shows antimicrobial properties, lowering membrane biofouling, hence improved the membrane lifetime and energy consumption of the water purification processes.