

### PH-triggered fabrication of porous graphene nanostructures

신영은, 고현협\*  
울산과학기술대학교  
(hyunhko@unist.ac.kr\*)

Recently, graphene has attracted considerable attentions for energy storage applications because of its high surface area, high electrical conductivity, and thermal/mechanical stability. We report a facile method to synthesize highly porous graphene structures via pH trigger. Chemically reduced graphene oxide (CReGO) sheets are well-dispersed owing to electrostatic repulsion in high pH condition, while agglomerating each other in low pH condition. Noticeably different CReGO morphology, dendrimer-like structure and wire-like structure, depend on different pH condition. These highly porous structures have potential applications in battery and supercapacitors.