

Solution-Processable Graphene Films consisting of Large sized Graphene Flakes as Transparent Conducting Films

최형욱, 양승보¹, 김대우, 김선준, 정희태*
KAIST; ¹LG화학
(heetae@kaist.ac.kr*)

We prepared reduced graphene oxide (RGO) films composed of relatively large sized RGO flakes by using exfoliated graphite from acid treatment and thermal expansion of large sized graphite and sonicating graphene oxide (GO) solution in low power. RGO films consisting of RGO flakes from acid treatment for 6hr had lower sheet resistance compared to RGO films composed of RGO flakes from acid treatment for 168hr owing to large sized RGO flakes. Furthermore, sheet resistance of RGO films could be reduced after various chemical doping such as Au, Sb and HNO₃.