

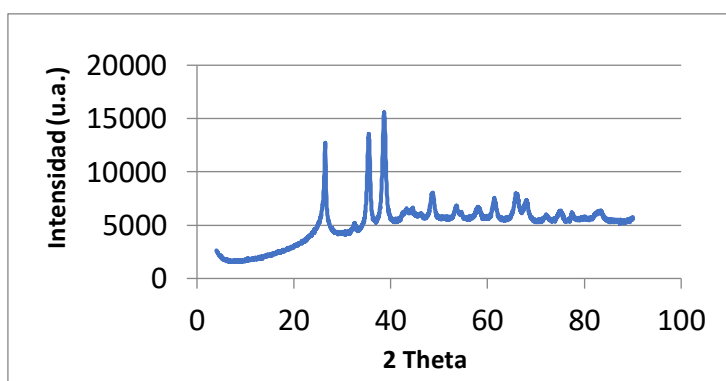
Graphene – Copper oxide nanoparticles

The nanocomposite has been synthesized by the formation of nanoparticles of copper oxide in the surface of pristine graphene nanoplatelets. The product has the following composition: Copper oxide 20-25 %, Graphene 75-80 % and Volatiles <1%.

The nanomaterial can be used in other applications as catalysis, sensors, energy storage and antibacterial and antiviral activity.

Gnanomat develops and tailor-made nanocomposites of carbon materials with nanoparticles and additives of different source for technologically advanced applications.

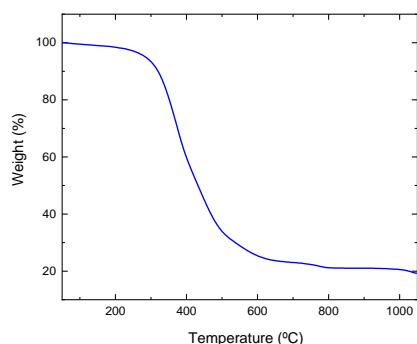
Graphene – Copper Oxide nanocomposite	
Form	Powder
Morphology	Graphene lateral size: 40-200 nm Nano/micro particles diameter (TEM): 20-100 nm Particle size calculated by XRD: 7.4 nm BET Surface area: 260 m ² /g
Color	Black
Potential uses and applications*	Catalytic/photocatalytic activity Energy Storage Sensors Antibacterial activity
Composition	CuO 20-25 % Graphene 75-80 % Volatiles <1%



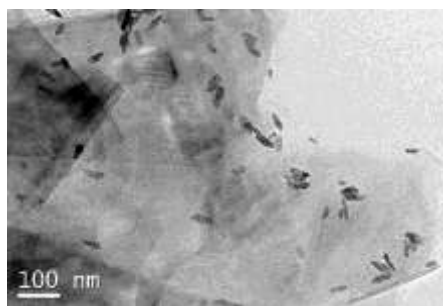
*XRD spectra



PRODUCT DATA SHEET



*Thermogravimetric curve



*TEM Image

About Gnanomat

Gnanomat, your nanotech partner of choice to bring nanomaterials to Industrial applications. The Company offers a versatile range of advanced materials for technologically advanced applications.

Nanomaterials need to be tailored for each specific device and application to ensure the best performance and we establish early collaborations with clients through custom product development.

Contact us to design and optimize products that from the first moment address the customer pains and offer real solutions that can fit into your manufacturing process.

Contact Gnanomat: ts@gnanomat.com



Gnanomat S.L.
Calle Faraday 7,
28049 Madrid (Spain)
Phone: +34 910800806

Web: www.gnanomat.com

*Application and uses references:

"Synthesis of CuO/graphene nanocomposites for nonenzymatic electrochemical glucose biosensor applications. *Electrochimica Acta* 82 (2012) 152–157".

"Fabrication of anchored copper oxide nanoparticles on graphene oxide nanosheets via an electrostatic coprecipitation and its application as supercapacitor. *Electrochimica Acta* 88 (2013) 347–357."

"Reduced graphene oxide–CuO nanocomposites for photocatalytic conversion of CO₂ into methanol under visible light irradiation. *Applied Catalysis B: Environmental* 181 (2016) 352–362."

"Antibacterial Properties of Graphene Oxide–Copper Oxide Nanoparticle Nanocomposites. *ACS Appl. Bio Mater.* 2019, 2, 12, 5687–5696".

