

# About XG Sciences, Inc

XG Sciences, Inc. manufactures and sells engineered nanomaterials and products to customers around the world. We are a pioneer in the field of graphene particles and have been manufacturing a new type of carbon nano-particle that we call xGnP® graphene nanoplatelets since 2009. We currently offer this material in the form of a bulk powder, or in the form of dispersions or precursors for conductive inks, electrode materials, films, papers, or coatings. We also work with plastics compounders or other material suppliers who use our materials as additives to improve the strength, electrical, thermal, or barrier properties of composites.

Founded in 2006, XG Sciences' initial technology came from Michigan State University, where it was developed with funding from the Michigan Economic Development Corporation as well as various government agencies. Subsequently, XG Sciences has become known for its proprietary, low-cost manufacturing technology that allows the production of high-quality graphene nanoplatelets at virtually any scale. Global production partners such as Cabot Corporation and POSCO have licensed XG Sciences' production technology for their own use in producing graphene materials. XG Sciences is a private corporation, registered in Michigan, whose shareholders include private investors as well as two corporations - Hanwha Chemical Corporation and POSCO.



XG Sciences' headquarters and main manufacturing facility in Lansing, MI.

## Why XG Sciences?

### Advanced Science

Our team of in-house scientists includes materials scientists who are pioneers in the field of graphene as well as specialists in electrochemistry, chemistry, electrical engineering, chemical engineering and metallurgy. Our research partners include many of the very best research laboratories around the world. US National Laboratories like Argonne, Oak Ridge, Lawrence Berkeley, and Los Alamos are research partners in different application areas, while top universities like Georgia Tech, Northeastern, MIT, Drexel, MSU, and over twenty others in the US also work with our materials. On an international basis, over thirty different universities and national laboratories in twelve countries work with our materials.

### Manufacturing Reliability

We have the largest production capacity of any graphene particle supplier in the world, and our production partners allow us to guarantee that no application is too big. Normally, we supply research and pilot-scale orders of up to 100 kgs. within a few days. Commercial orders of up to 100 tons/yr. can now be accepted at competitive prices. We can provide bulk powder, dispersions in aqueous or organic systems, specially-formulated papers and coatings, and electrode formulations for a range of battery or supercapacitor applications.

### Application Know-how

Not all graphene platelets are equal. That's why we offer three different grades of material, each in multiple sizes. Additionally, we can tailor aspects of our materials for specific applications or we can blend different sizes and grades together or with other materials to produce the right hybrid material system for your application. We know from experience that the best materials for supercapacitors are not necessarily the best materials for batteries, and that conductive inks require different materials than high-strength composite applications. We have specific in-house knowledge in key application areas like nano-composites, conductive inks, supercapacitors, batteries, thermal dissipation, and many more.

### Flexibility

We understand that our customers have different preferred approaches to business and we work within many frameworks. We prefer to collaborate with our customers to most effectively serve their needs, but we are also happy to simply provide materials. We work with strategic partners in multiple countries and under different cooperative frameworks. We have licensed our IP to partners and we are open to joint development or cooperation on an application, market, or geographic basis.



Our scientists have many years of experience with our materials