



Technical Data Sheet

ACS Material Black Phosphorus Powder

Table of Contents

[1 – Preparation Method](#)

[2 – Characterizations](#)

[3 – Application Fields](#)

Contact Information:

Manufacturer: ACS Material, LLC.
Address: 959 E Walnut St. Suite 100
Pasadena, CA 91106, USA
Phone: (866)-227-0656
Fax: (781)-518-0284
E-Mail: contact@acsmaterial.com
Revision: 070317

1. Preparation Method

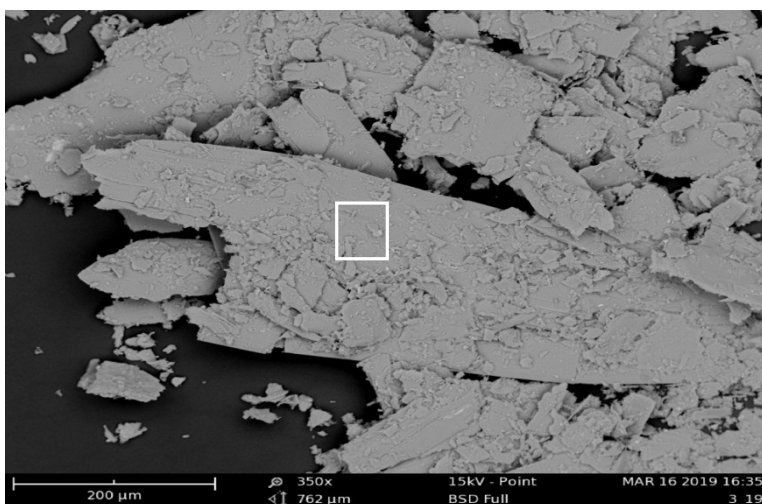
CVD Method

2. Characterizations

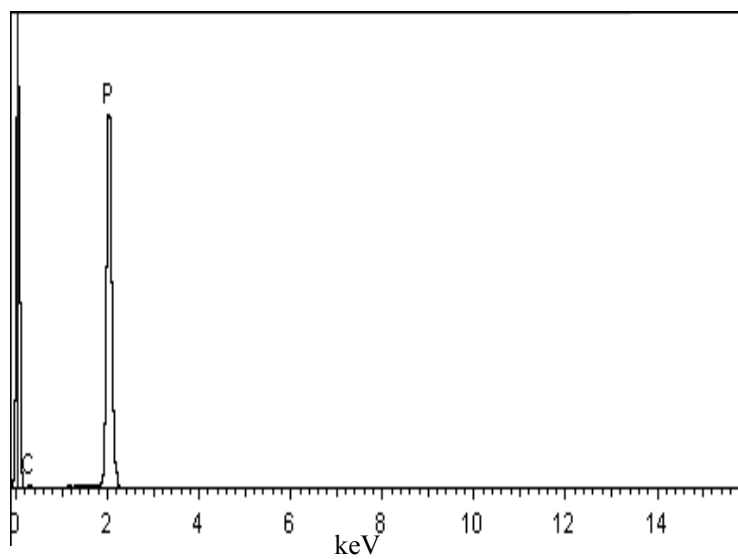
| | |
|-----------------------|--|
| Composition: | Black phosphorus powder |
| Appearance: | Sheet-like particle structure with metal-like luster |
| Particle Size: | Length \times Width \times Height = $\sim \mu\text{m} \times \sim \mu\text{m} \times \sim \text{nm}$ |
| Package: | Vacuum silica tube (8 cm) |



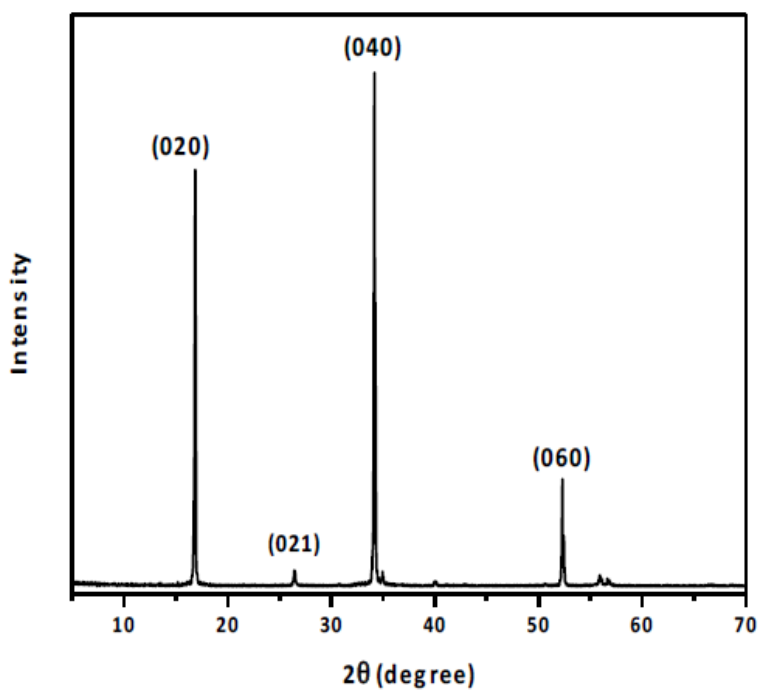
Image of ACS Material Black Phosphorus Powder



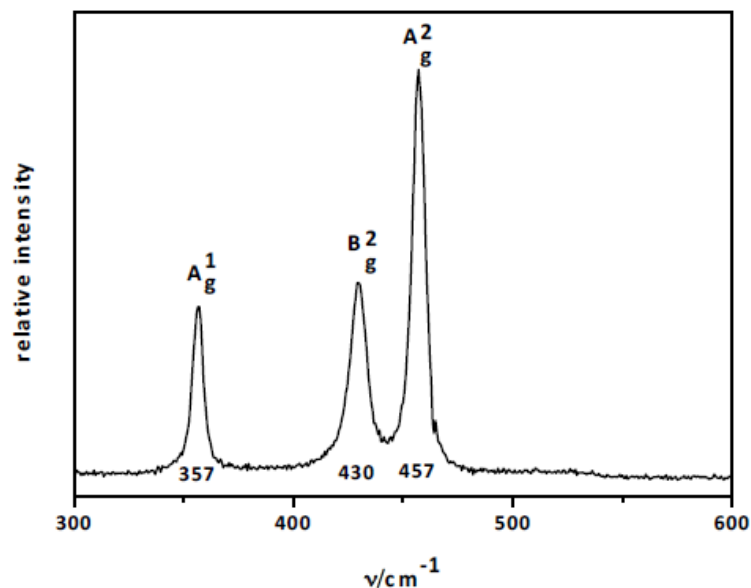
Typical SEM Image of ACS Material Black Phosphorus Powder



EDX Pattern of ACS Material Black Phosphorus Powder in the above SEM image



XRD Pattern Image of ACS Material Black Phosphorus Powder



Raman Spectrum Image of ACS ACS Material Black Phosphorus Powder

3. Application Fields

Compared with other allotropes of phosphorus (white and red phosphorus), black phosphorus powder is a thermodynamic stable semiconductor material. It can be widely used in photocatalysis, photo-degradation, and other photo-voltage effects.

Disclaimer: ACS Material, LLC believes that the information in this Technical Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.