

Accepted Manuscript

Title: Synthesis, field emission properties and optical properties of ZnSe nanoflowers

Author: S.L. Xue S.X. Wu Q.Z. Zeng P. Xie K.X. Gan J. Wei
S.Y. Bu X.N. Ye L. Xie R.J. Zou C.M. Zhang P.F. Zhu



PII: S0169-4332(16)00036-2
DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2016.01.022>
Reference: APSUSC 32254

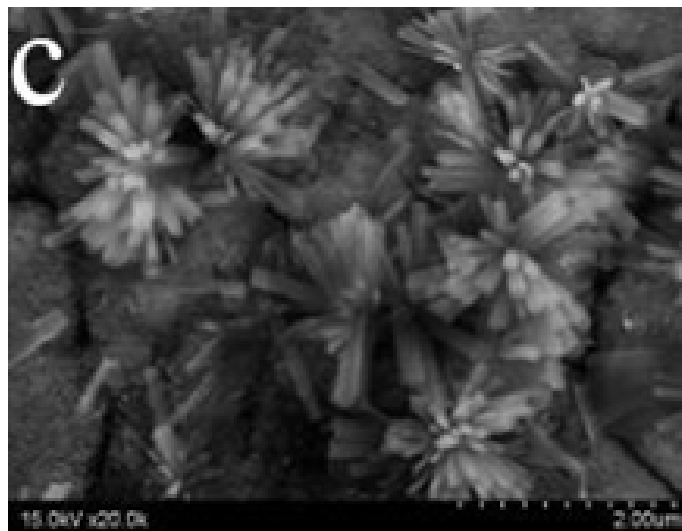
To appear in: *APSUSC*

Received date: 16-7-2015
Revised date: 24-12-2015
Accepted date: 5-1-2016

Please cite this article as: S.L. Xue, S.X. Wu, Q.Z. Zeng, P. Xie, K.X. Gan, J. Wei, S.Y. Bu, X.N. Ye, L. Xie, R.J. Zou, C.M. Zhang, P.F. Zhu, Synthesis, field emission properties and optical properties of ZnSe nanoflowers, *Applied Surface Science* (2016), <http://dx.doi.org/10.1016/j.apsusc.2016.01.022>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Graphical abstract



Unique ZnSe nanoflowers have been successfully synthesized by reaction of Se powder with Zn substrates. Characterized by XRD, SEM, TEM, XPS, EDS and Raman spectroscopy. Were single crystals with cubic zinc blende (ZB) structure. Have excellent field emission properties and optical properties.

Novel ZnSe nanoflowers are grown on Zn foils.

ZnSe nanoflowers are characterized by XRD, SEM, TEM, XPS and Raman spectra.

ZnSe nanoflowers on Zn foils as cathodes possess good FE properties.

Synthesis, field emission properties and optical properties of ZnSe nanoflowers

S. L. Xue^a, slxue@dhru.edu.cn, S. X. Wu^{a1}, Q. Z. Zeng^{a1}, P. Xie^a, K. X. Gan^a, J. Wei^a, S.Y. Bu^a, X. N. Ye^a, L. Xie^{a,b,c}, R. J. Zou^b, C. M. Zhang^c, P.F. Zhu^c

^aDepartment of applied physics, College of Science, Donghua University, Shanghai 201620, China

^bState Key Laboratory for Modification and Chemical Fibers and Polymer Materials, Donghua University, Shanghai 201620, China

^cDepartment of physics, School of Fundamental studies, Shanghai University of Engineering Science, Shanghai 201620, China

Abstract

ZnSe nanoflowers have been synthesized by reaction of Se powder with Zn substrates at low temperature. The as-prepared ZnSe nanoflowers were characterized by X-ray diffraction (XRD), scanning electron microscope (SEM), transmission electron microscopy (TEM), high-resolution

Download English Version:

<https://daneshyari.com/en/article/5348034>

Download Persian Version:

<https://daneshyari.com/article/5348034>

[Daneshyari.com](https://daneshyari.com)