

Abstract Submitted  
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**Photoluminescence spectroscopy and transmission electron microscopy imaging of InGaAs quantum dot chains** TYLER PARK, KENNETH CLARK, DAVID MEYER, ANDREW PERRY, SCOTT THALMAN, JOHN COLTON, Brigham Young University, HAEYEON YANG<sup>1</sup>, South Dakota School of Mines & Technology — There are many potential uses of quantum dots, and specifically, quantum dot chains. We have obtained three InGaAs quantum dot chain samples that were grown using a modified Stranski-Krastanov technique. To study the quality and other aspects of these samples, we are using a number of techniques, among which are photoluminescence spectroscopy and transmission electron microscopy. Through photoluminescence spectroscopy, we hope to establish the quality of the quantum dots. With the transmission electron microscope, we hope to verify the size and spacing, identify the composition, and find out the segregation of the Indium in the dots.

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