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Characterization of quantum dot chains using transmission electron microscopy TYLER PARK, JOHN COLTON, JEFFREY FARRER, Brigham Young University, HAEYEON YANG, South Dakota School of Mines and Technology — We report on the growth and characterization of InGaAs self-assembled quantum dots which form into chains through an altered Stranski-Krastanov method. The methods we are using to study these quantum dot chains include imaging and chemical analysis using a transmission electron microscope (TEM). In order for the quantum dot chains to be characterized using the TEM, the samples must be cut and thinned to allow enough electrons to pass through the sample for our techniques. We are making cross-section and plan view cuts which allow us to get information about the chemical composition, indium segregation, size and spacing, contaminates and other aspects of the dots.

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