

FLORIDA STATE UNIVERSITY  
FAMU-FSU COLLEGE OF ENGINEERING

LOW ENERGY MANUFACTURING AND OPTIMIZATION OF PEROVSKITE FILM  
GROWTH FOR APPLICATION IN WIRE-SHAPED PHOTODETECTION

By  
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A Dissertation submitted to the  
Department of Industrial and Manufacturing Engineering  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

2020

Geoffrey Ryan Adams defended this dissertation on June 22, 2020.

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