MSE SEMINAR

March 30, 2018
113 McBryde Hall
3:30 – 4:30 PM
Refreshments at 3:00 PM

Peter Loomis

Graduate Student
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"Characterizing the effect of pore size and frequency on microwave drying"

Abstract:

The drying process is one of the most vital steps in the manufacturing of ceramics. The presence of different pore sizes affects the rate of drying in conventional convective heating and if not properly controlled can result in cracking. Experimentally it has been found that the rates of water removal in fused silica filters of differing pore sizes are more equal when the mode of heating is microwave heating as opposed to conventional. This research compares microwave and conventional drying of silica filters with differing pore sizes and proposes a model to explain the more rapid drying observed with the use of microwave energy.

Biosketch:

Peter Loomis is a Masters of Engineering student under Dr. David Clark. He graduated with a BS in MSE from Virginia Tech in 2017. Together with Ben Dillinger he manages MSE's microwave lab and the undergraduate students working in it. He has served on the Materials Engineering Professional Societies board of officers, and competed in the first three Domesday competitions held at MS&T. In his undergraduate research, senior design, and graduate work he has focused on microwave assisted processing.