

Validation and implementation of a viscoelastic material model for analysis of an instrumented photovoltaic module mechanical test



Matt R. Phillips^{1,2}, James Y. Hartley², Ashley M. Maes², Charles D. Robinson²

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¹ North Carolina State University

² Sandia National Laboratories

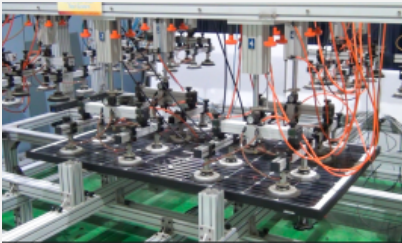
Energy Research: Spark Talks, North Carolina State University

Goal & Instrumentation

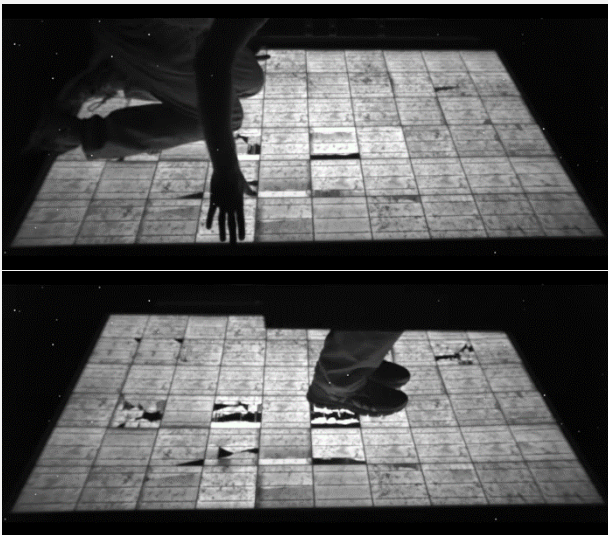
What's the problem?



Rahmatmand et al. Solar Energy, Volume 171, 2018

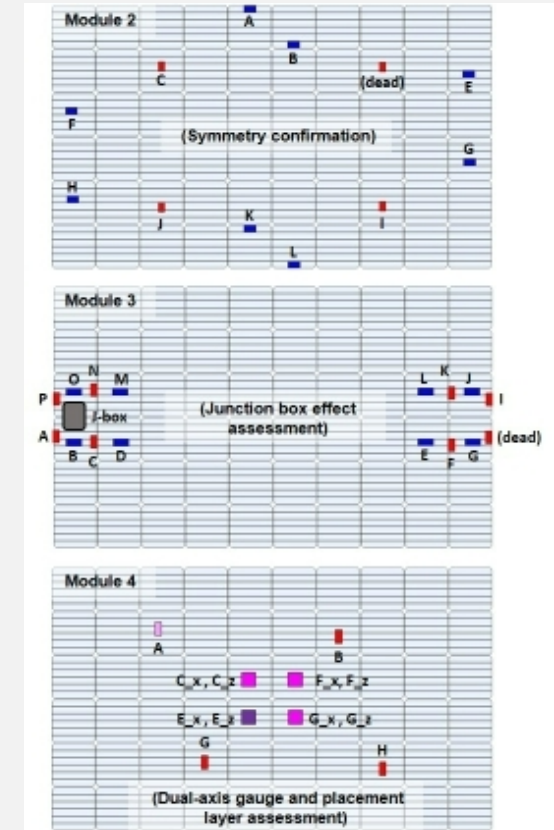
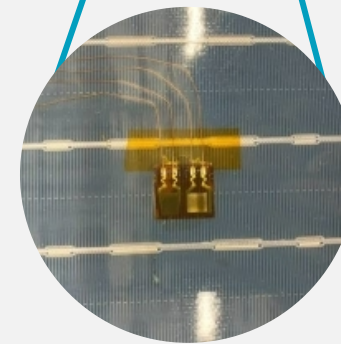
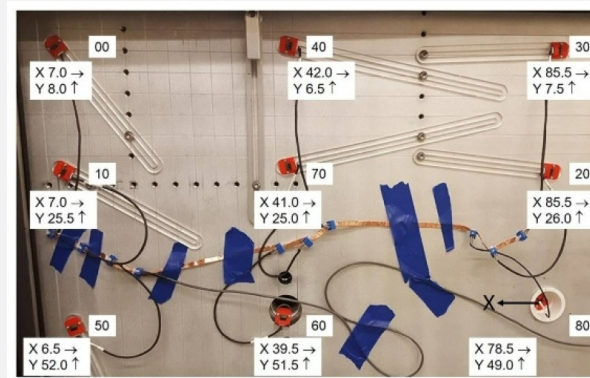
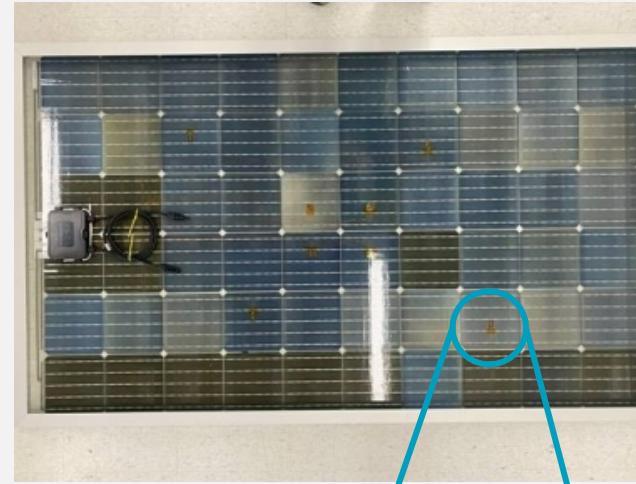


Win Win Precision Technology Co., Ltd.



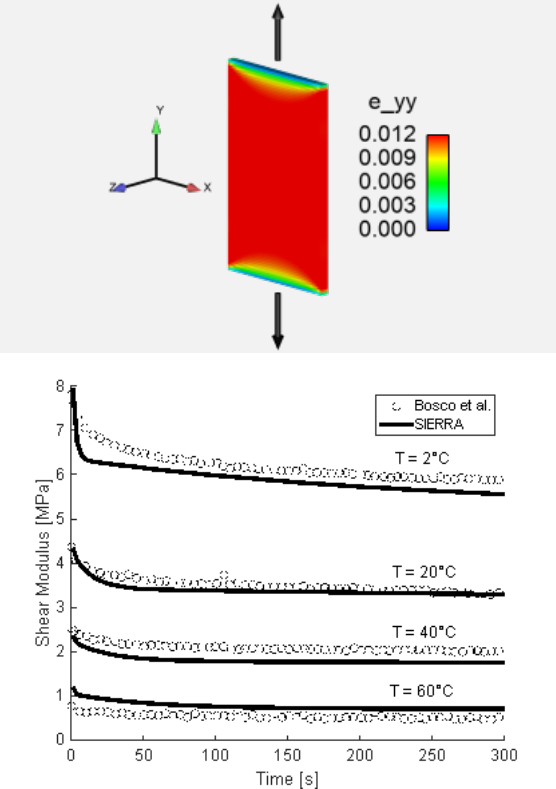
<https://youtube/-qdyxlybmoc>

What can we do?



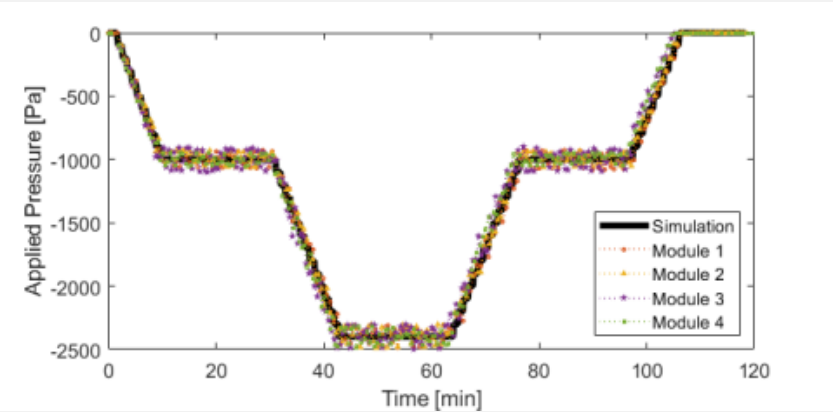
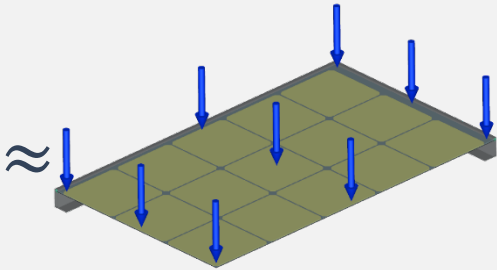
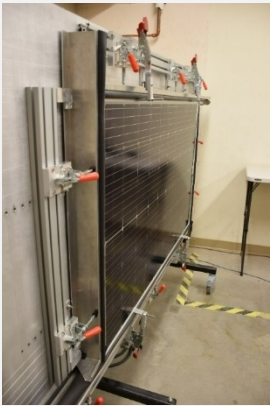
Simulation & Results

Viscoelastic Material Model Validation



Bosco et al. IEEE Journal of Photovoltaics, VOL. 10, NO. 5, 2020

Applied Pressure Boundary Condition



Displacement and Strain Results

