

Fabrication of Organic Photovoltaics by Spray Deposition

Brad Dinardo

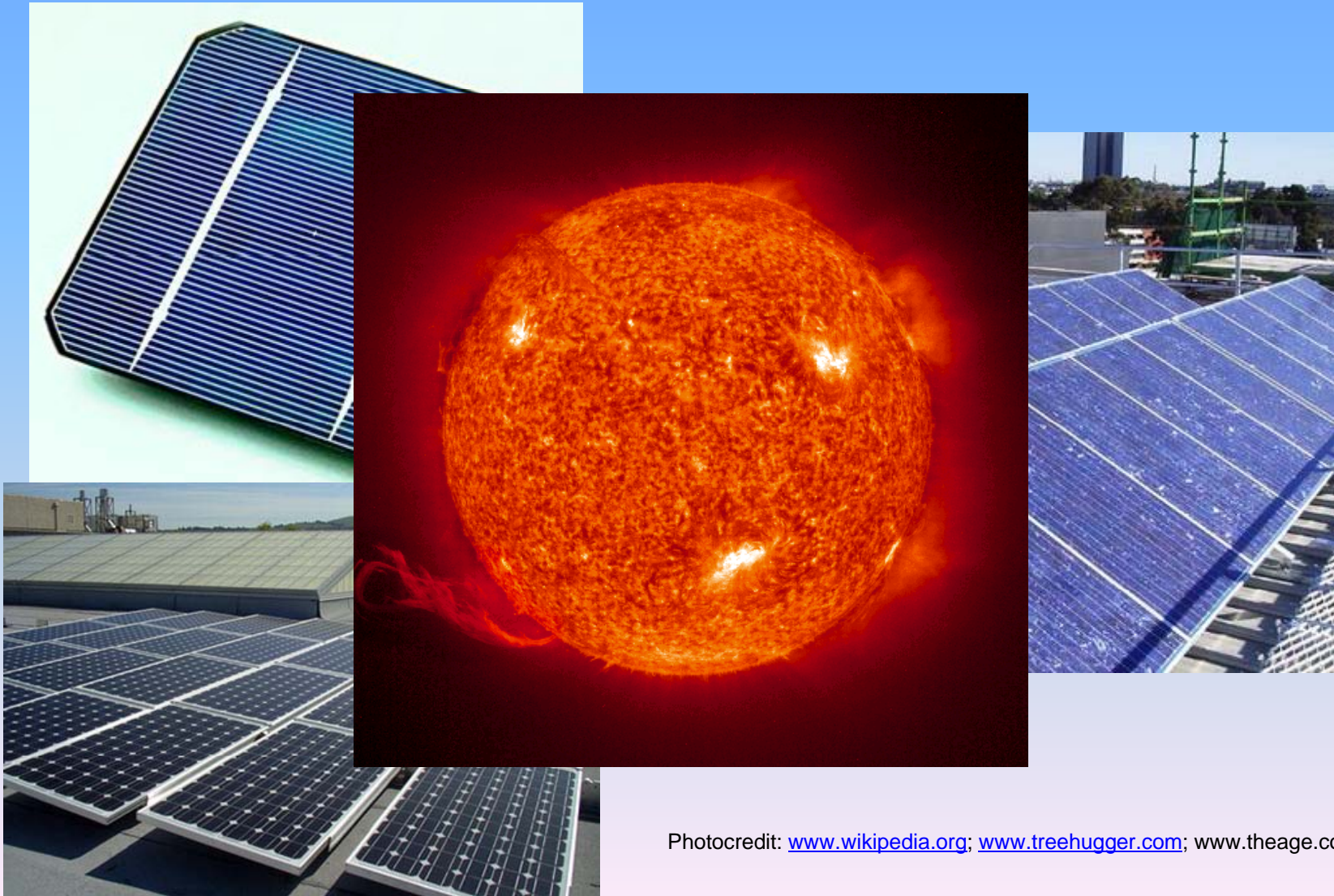
Advisor: Calvin Chan; NIST SED

July 17, 2009



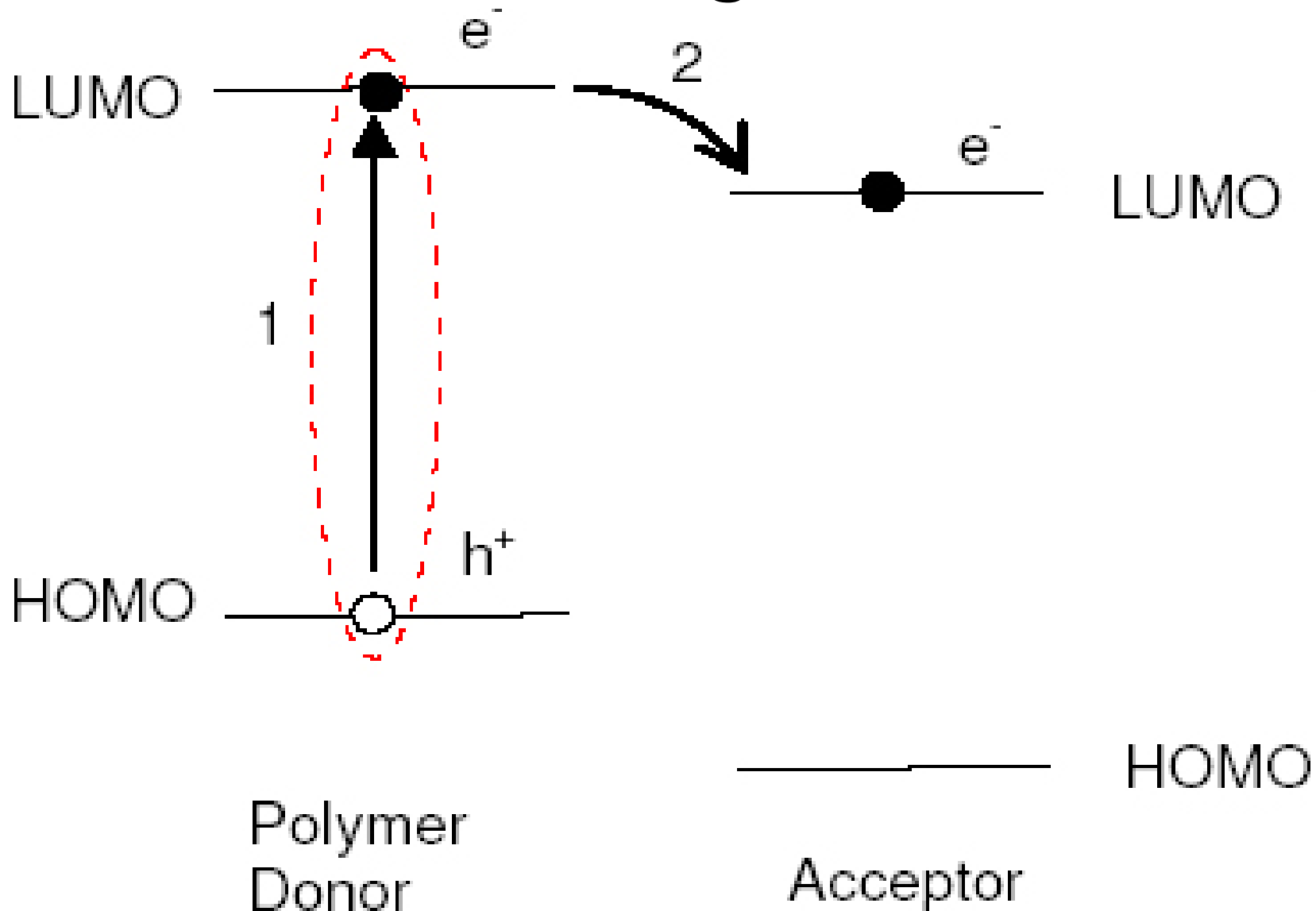
NIST

Energy from the Sun

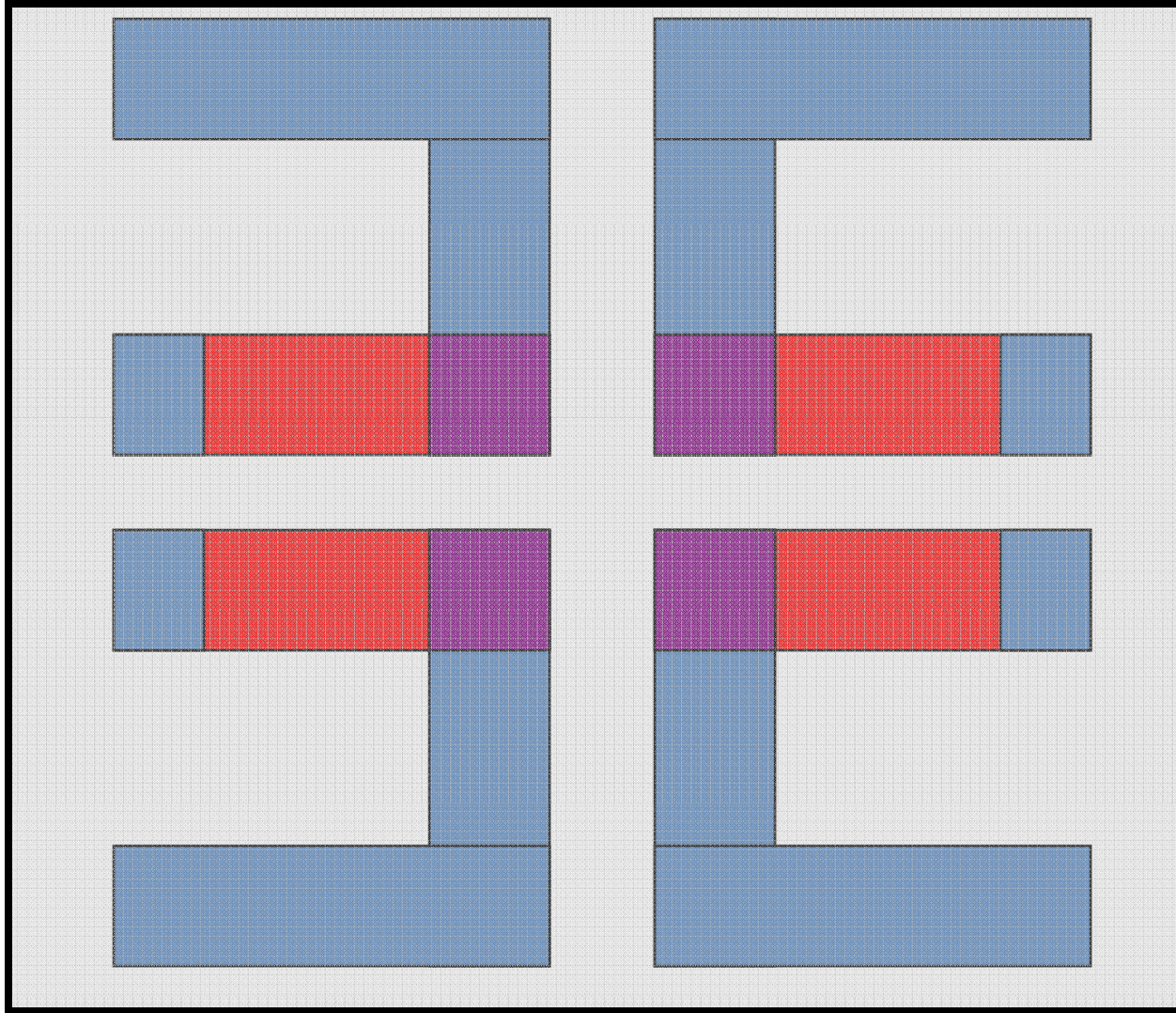


Photocredit: www.wikipedia.org; www.treehugger.com; www.theage.com

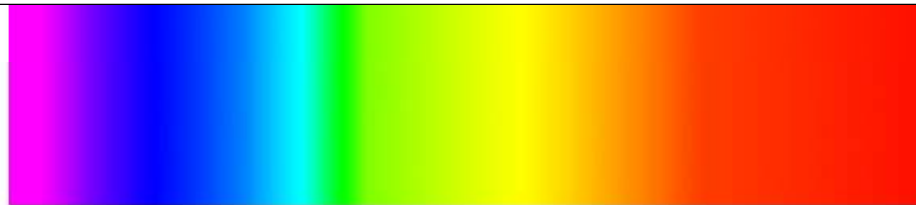
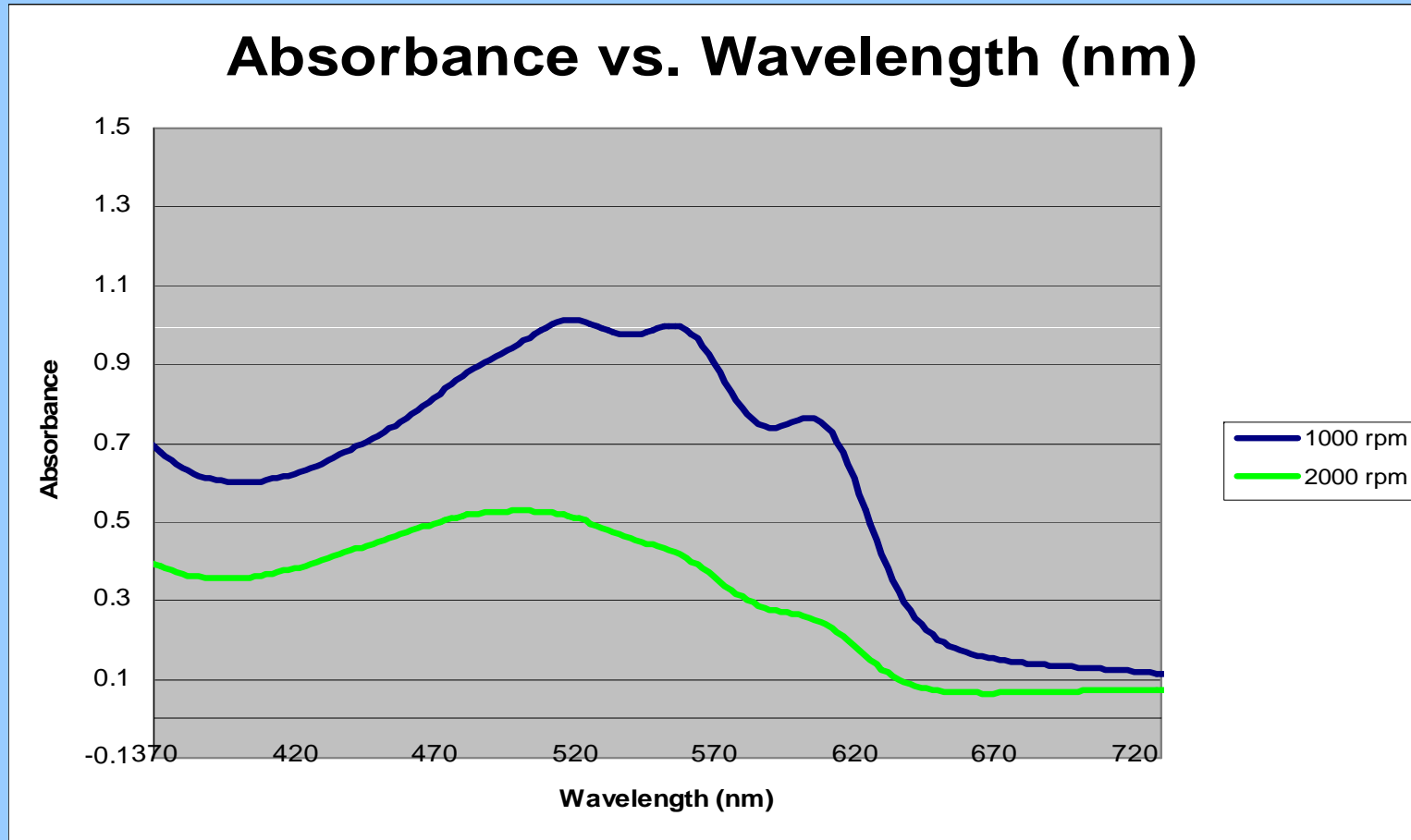
Structure of Organic Solar Cells



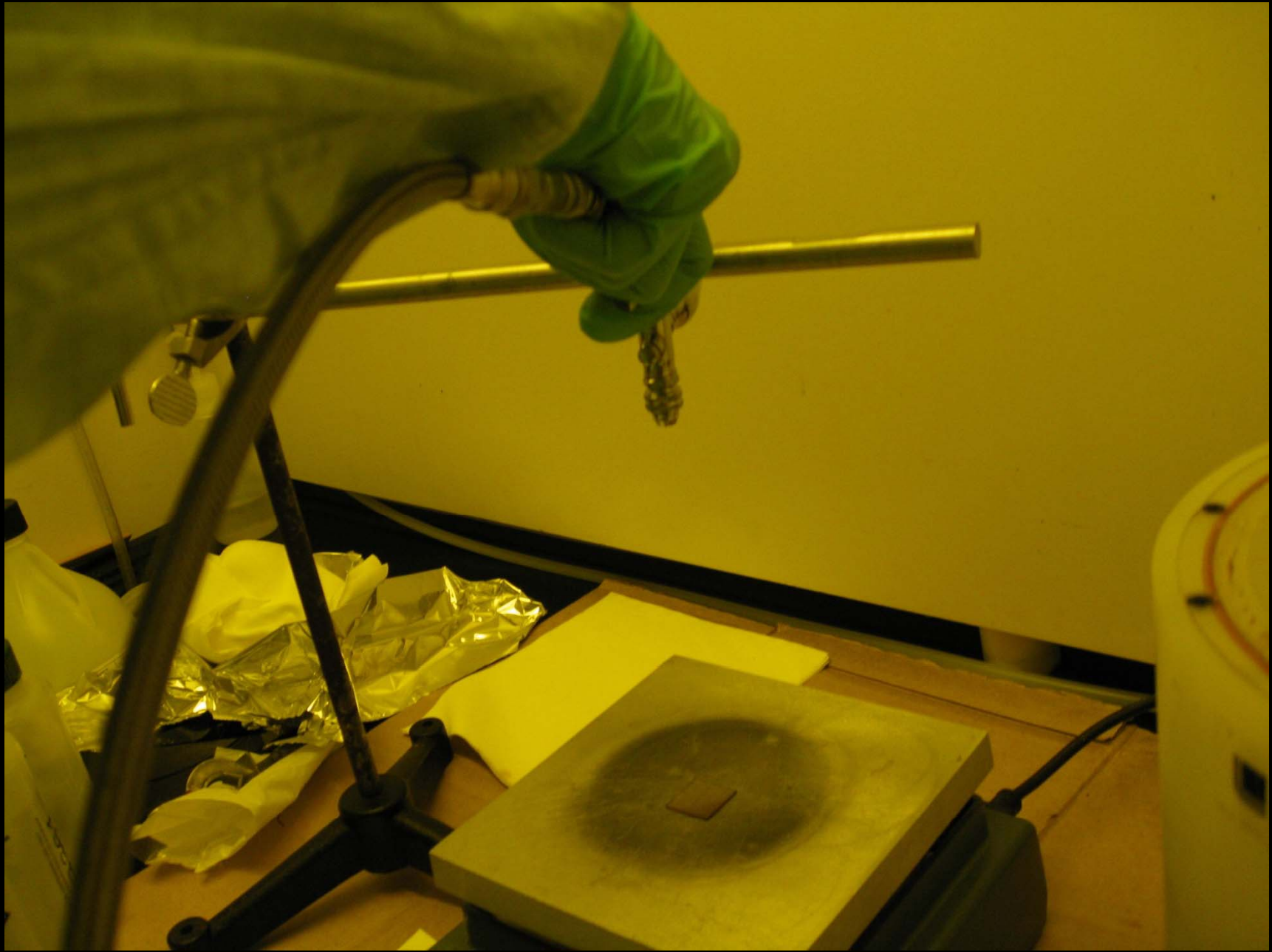
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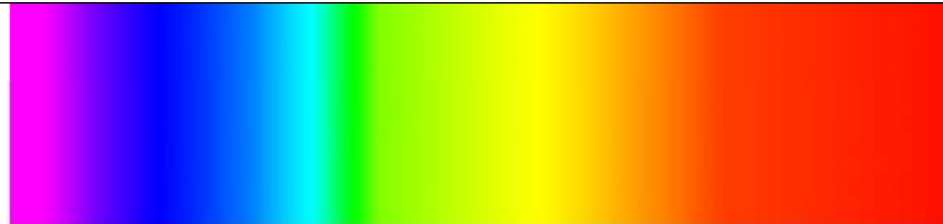
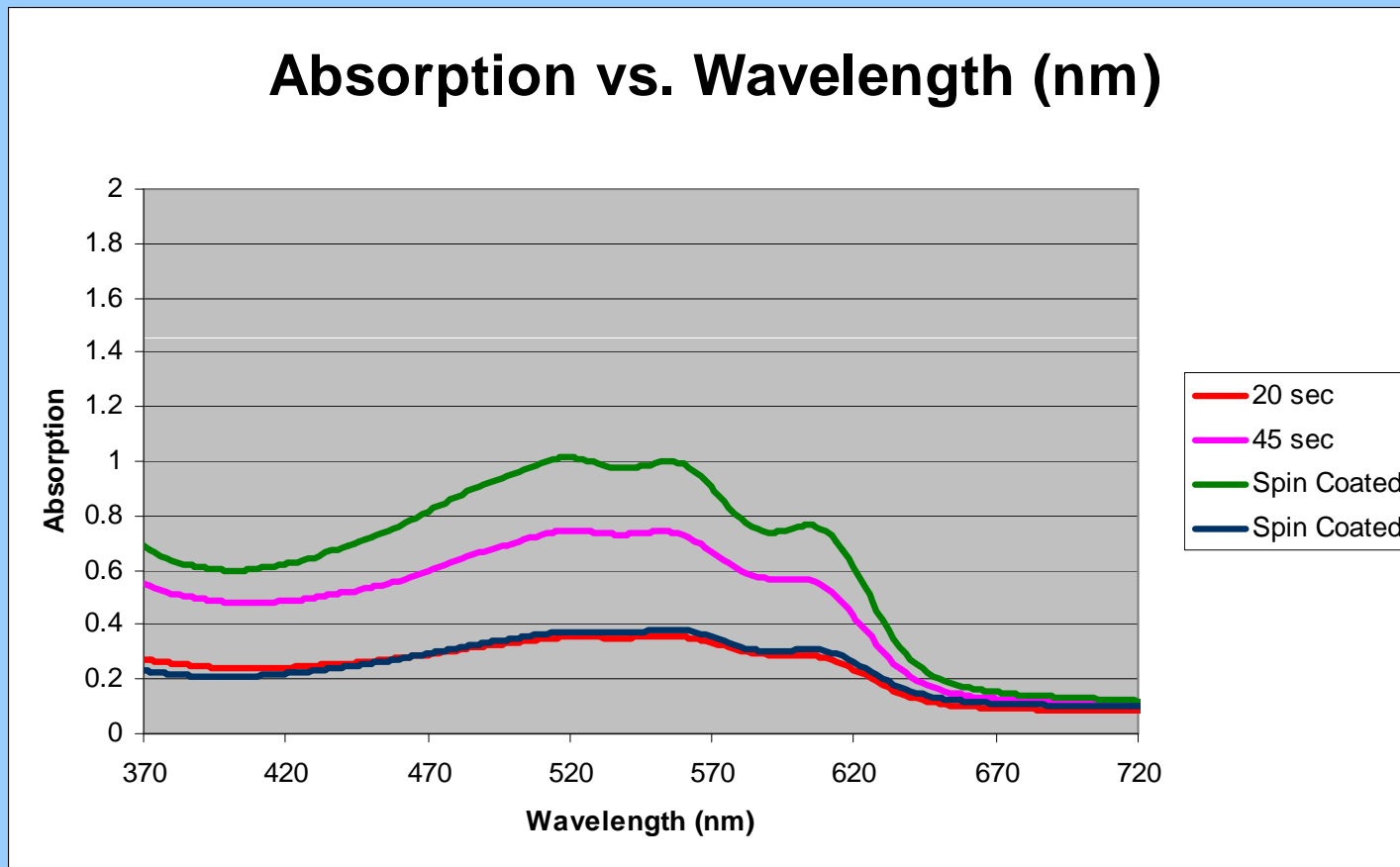
Optical Characteristics







Spray Deposition Results



Future of Project

- Analyze Electrical Characteristics
 - Current & Voltage Efficiencies
- Determine film thickness using Ellipsometry



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A photograph of a large solar panel array on a roof. The panels are arranged in neat rows and reflect the bright sunlight. The sky is a clear, vibrant blue, and the sun is positioned in the upper center, creating a starburst effect. The background shows a line of trees and a building under a clear sky.

Questions?