

Self-Assembled Bilayers for Application in Dye-Sensitized Solar Cells

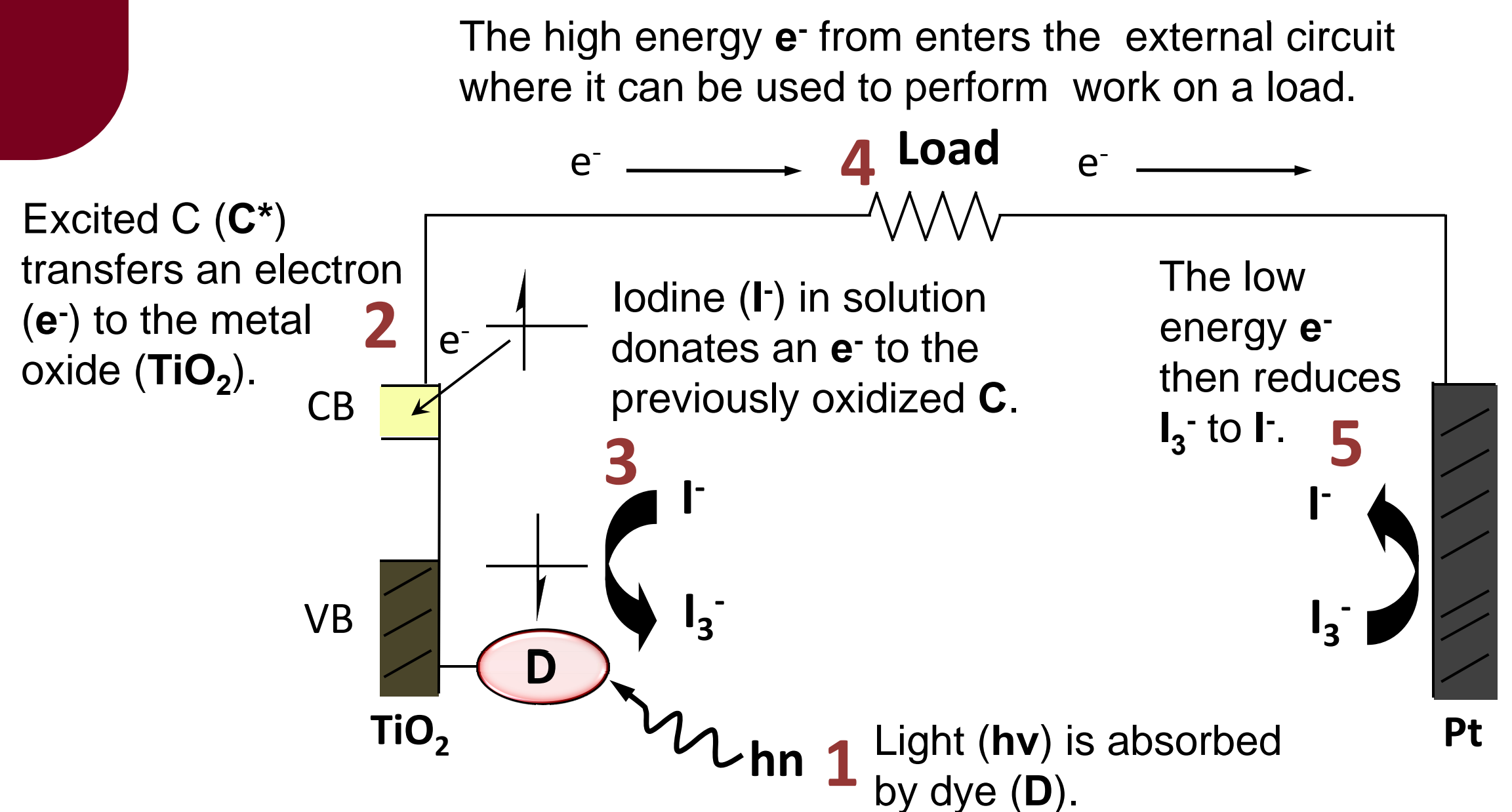
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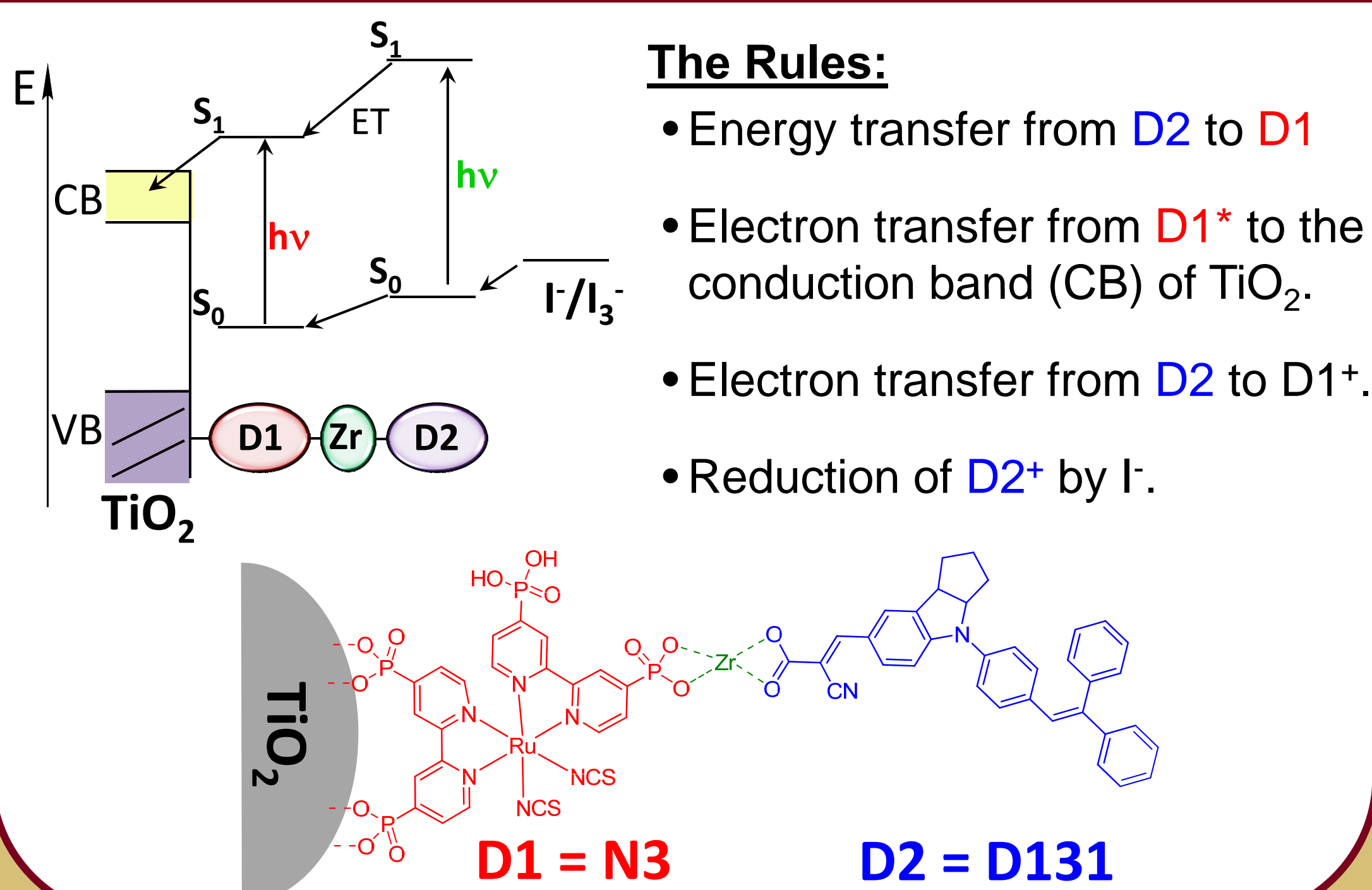
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Introduction

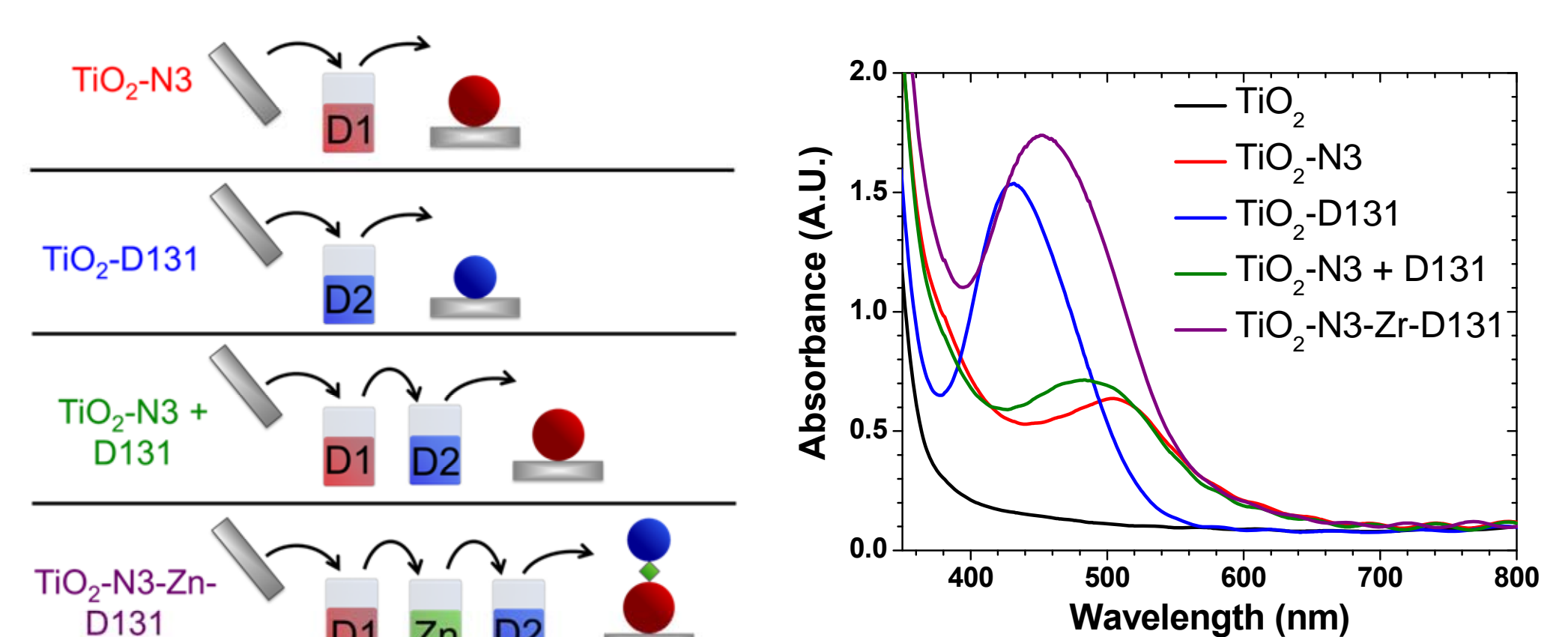
- DSSCs are a low-cost alternative to current solar cell technology.
- Although promising, DSSC efficiencies must increase from 13% to >15%.
- Increased light absorption is one way to enhance solar cell performance.
- This research is dedicated to improving light absorption by using self-assembled bilayers.



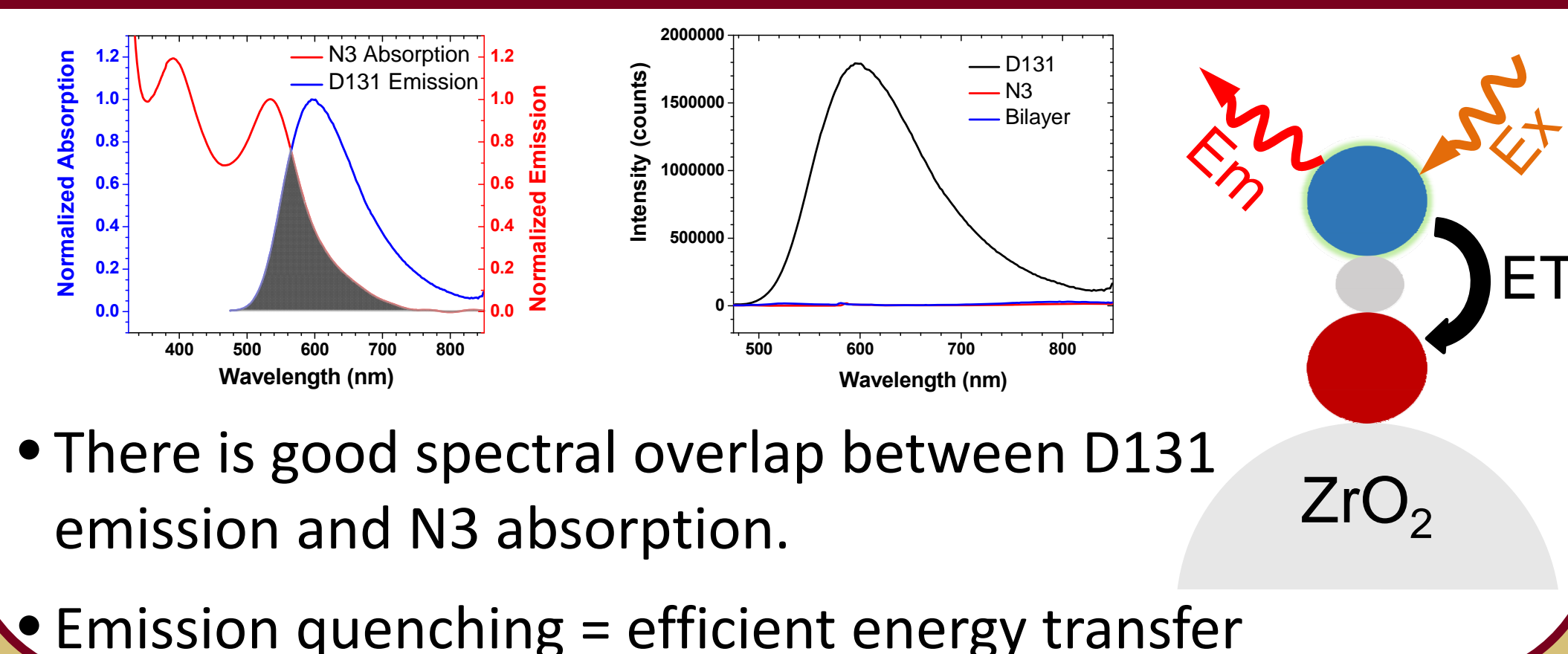
Energy Scheme



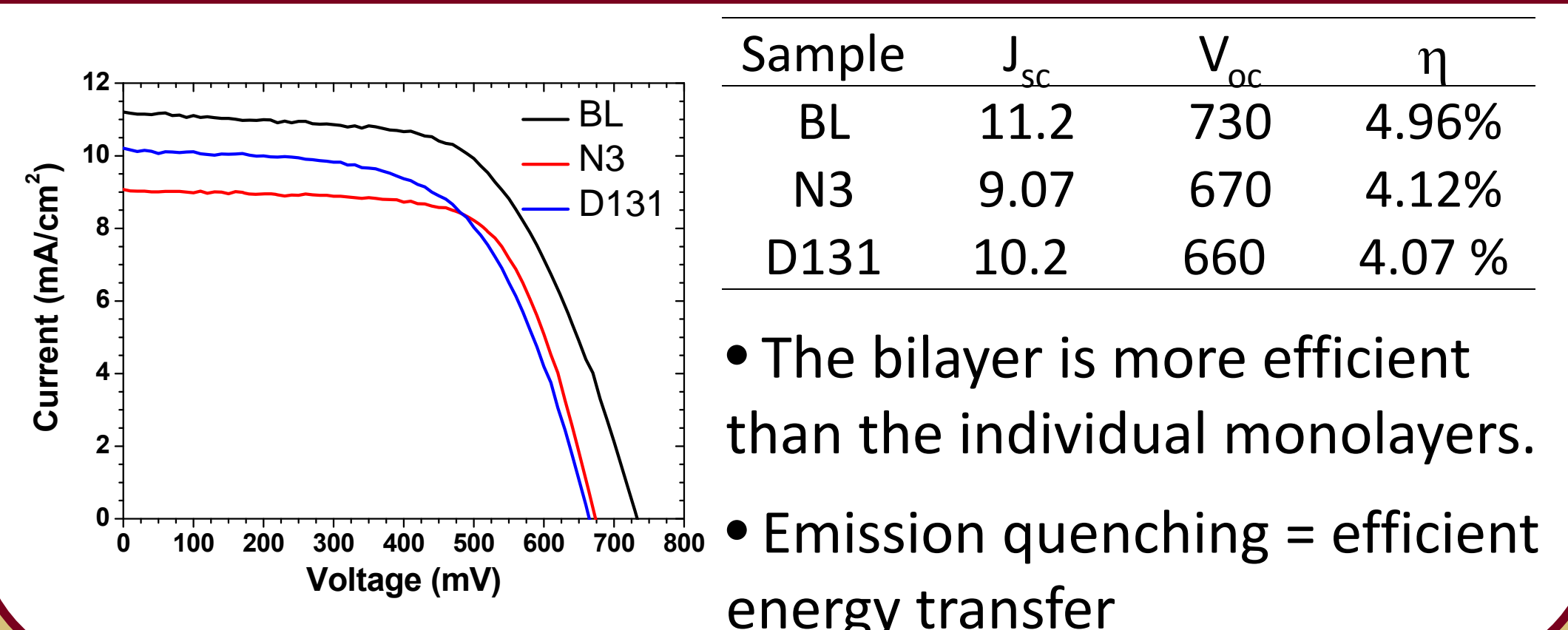
Film Formation



Energy Transfer

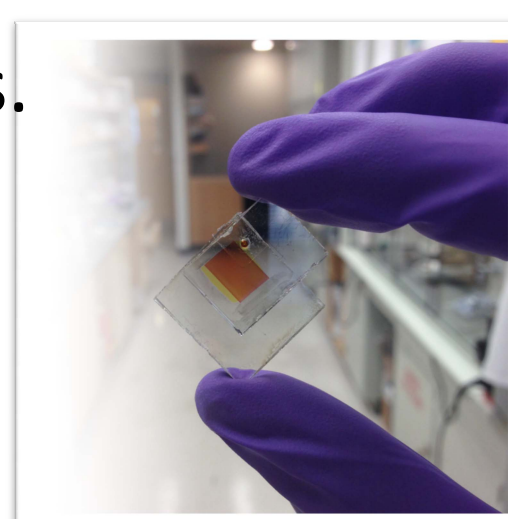


Device Performance



Future Work

- Compare bilayer and co-deposited devices.
- Perform electrochemical impedance.
- Bilayer concentration dependence.
- Investigate other electrolytes.
- Thickness dependence.
- Measure energy and electron transfer dynamics in the bilayer films.



Acknowledgements

