

Recent Publications

- Majumder EL-W, Olsen JD, Qian P, Collins AM, Hunter CN and Blankenship RE (2016) Supramolecular organization of photosynthetic complexes in membranes of *Roseiflexus castenholzii*. *Photosynthesis Research*, **127**: 117-130.
- Majumder ELW and Blankenship RE (2016) The diversity of photosynthetic cytochromes. In: *Cytochrome Complexes: Evolution, Structures, Energy Transduction, and Signaling*, W Cramer and T Kallas, Eds., Springer, Dordrecht. *Advances in Photosynthesis and Respiration*, Vol. 41, pps 25-50. (IR)
- Lu Y, Zhang H, Cui W, Saer R, Liu H, Gross ML, and Blankenship RE (2015) Top-down Mass Spectrometry Analysis of Membrane-bound Light-Harvesting Complex 2 from *Rhodobacter sphaeroides* *Biochemistry*, **54**: 7261-7271.
- Zhang H, Liu H, Blankenship RE and Gross ML (2016) Isotope-encoded Carboxyl Group Footprinting for Mass Spectrometry-based Protein Conformational Studies. *Journal of the American Society for Mass Spectrometry*, **27**: 178-181.
- Kavadiya S, Chadha TS, Liu H, Shah VB, Blankenship RE and Biswas P (2016) Directed Assembly of Thylakoid Membrane on Nanostructured TiO₂ for a Photo-electrochemical Cell. *Nanoscale* **8**: 1868-1872.
- Zhang, H, Liu, H, Lu, Y, Wolf, NR, Gross ML and Blankenship RE (2016) Native Mass Spectrometry and Ion Mobility Characterize the Orange Carotenoid Protein Functional Domains. *Biochim. Biophys. Acta* **1857**: 734-739.
- Liu H, Zhang H, Orf GS, Lu Y, Jiang J, King JD, Wolf NR, Gross ML and Blankenship RE (2016) Dramatic Domain Rearrangements of the Cyanobacterial Orange Carotenoid Protein upon Photoactivation. *Biochemistry* **55**: 1003-1009.
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- Niedzwiedzki DM, Tronina T, Liu H, Staleva H, Komenda J, Sobotka R, Blankenship RE, and Polívka T (2016) Carotenoid-induced non-photochemical quenching in the cyanobacterial chlorophyll synthase-HliC/D complex. *Biochim. Biophys. Acta* **1857**: 1430-1439.
- Saer R, Orf GS, Lu X, Zhang H, Myles D and Robert E. Blankenship RE (2016) Perturbation of Bacteriochlorophyll Molecules in Fenna-Matthews-Olson Protein Complexes through Mutagenesis of Cysteine Residues. *Biochim. Biophys. Acta* **1857**: 1455-1463.

- Orf GS, Saer R, McIntosh CL, Zhang H, Niedzwiedzki DM and Blankenship RE (2016) Reactive cysteine residues gate energy transfer in the FMO complex from *Chlorobaculum tepidum*. *Proc. Nat'l. Acad. Sci. USA*. **113**: E4486–E4493.
- Magdaong NCM, Niedzwiedzki DM, Goodson C and Blankenship RE (2016) Carotenoid-to-Bacteriochlorophyll Energy Transfer in the LH1-RC Core Complex of a Bacteriochlorophyll *b*-Containing Purple Photosynthetic Bacterium *Blastochloris viridis*. *Journal of Physical Chemistry B* **120**: 5159-5171.
- Kell A, Blankenship RE, and Jankowiak R (2016) Effect of Spectral Density Shapes on the Excitonic Structure and Dynamics of the Fenna-Matthews-Olson Trimer from *Chlorobaculum tepidum*. *Journal of Physical Chemistry A* **120**: 6146–6154.
- Lu Y, Zhang H, Niedzwiedzki DM, Jiang J, Blankenship RE, and Gross ML (2016) Fast Photochemical Oxidation of Proteins Maps the Topology of Intrinsic Membrane Proteins: Light-Harvesting Complex 2 in a Nanodisc. *Analytical Chemistry* **88**: 8827-8834.
- Niedzwiedzki DM, Hunter CN and Blankenship RE (2016) Evaluating the Nature of So-Called S*-State Feature in Transient Absorption of Carotenoids in Light-Harvesting Complex 2 (LH2) from Purple Photosynthetic Bacteria. *Journal of Physical Chemistry B*. **120**: 11123–11131.
- Khadka B, Adeolu M, Blankenship RE and Gupta RS (2017) Novel Insights into the Origin of Photosynthetic Reaction Centers I and II Based on Conserved Indels in the Core Proteins. *Photosynthesis Research*, **131**: 159-171.
- Zhang H, Harrington LB, Lu Y, Prado M, Saer R, Rempel D, Blankenship RE and Gross ML (2017) Native Mass Spectrometry Characterizes the Photosynthetic Reaction Center Complex from the Purple Bacterium *Rhodobacter sphaeroides*. *Journal American Society of Mass Spectrometry*, **28**: 87-95.
- Mendez DL, Babbitt SE, King J, D'Alessandro J, Blankenship RE, Mirica LM, Kranz RG (2017) Engineered holocytochrome *c* synthases that biosynthesize new cytochromes *c*. *Proc. Nat'l. Acad. Sci. USA* **114**: 2235-2240.
- Lu Y, Liu H, Saer R, Zhang H, Meyer C, Shi L, King JD, Gross ML, Blankenship RE (2017) Native mass spectrometry analysis of oligomerization states of FRP and OCP: two proteins involved in the cyanobacterial photoprotection cycle. *Biochemistry* **56**: 160-166.
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Blankenship RE (2017) How cyanobacteria went green. *Science* **355**: 1372-1373.

Saer R and Blankenship RE (2017) Light-harvesting in phototrophic bacteria: structure and function. *Biochemical Journal* **474**: 2107-2131.

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