

Abstract Submitted
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Regenerative quantum coherence in photosynthesis under natural conditions¹ STEPHAN HOYER, K. BIRGITTA WHALEY, University of California, Berkeley — Recent experiments provide compelling evidence for the feasibility of quantum coherent beating in photosynthetic light harvesting complexes, even at room temperature. However, whether this coherence arises *in vivo* and its biological function (if any) have remained unclear. Here we present theoretical evidence for the creation and regeneration of electronic coherence under natural conditions. We show how such regenerated coherence may contribute to energy transfer efficiency in the Fenna-Matthews-Olson (FMO) complex of green sulfur bacteria.

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