Simplifying Synthesis with Electricity

Phil Baran The Arnold and Mabel Beckman Center for Chemical Sciences The Scripps Research Institute La Jolla, CA United States *pbaran@scripps.edu*

Organic synthesis is one of the great branches of Chemistry that has had a profound impact on the betterment and advancement of civilization. In its most modern manifestations, it renders the dream of alchemy (turning something worthless into something valuable) a reality. It places the practitioner into the role of artist, engineer, and astronaut. Thus, advances in this field are inherently of interest to a broad audience. Predicting the specific developments that will alter the course of this field is difficult. This talk will use case-studies from our lab to demonstrate how one of the oldest and least expensive reagents on Earth, electrons, can facilitate new retrosynthetic disconnections and aid in the pursuit of simple, ideal solutions to longstanding challenges.