

Abstract Format

Instructions for Abstract Preparation

All abstracts must be **submitted on-line** through the abstract submission system, uploaded as a Microsoft Word document (.doc or .docx). Submissions should be in English, using Arial font size 11, and should not be more than 300 words. The following sections should be included:

Title: In bold; capitalize the first letter of the title and of any names as appropriate.

Authors: List all authors by their full name and last names, with the last names in all capital letters. Indicate the presenting author of the abstract at the Workshop by underlining their name. Include superscript numbers after last name to associate authors with their affiliation. **The presenting author is responsible for ensuring that all co-authors are aware of the content of the abstract before submission.**

Affiliation: In Italics. Include the corresponding superscript number followed by the department, institution, and/or company, and location including any city, state/province, postal/zip code and country. At the end of the affiliation include presenter's e-mail address.

Body of the abstract: Maximum of 300 words. Should contain a brief introduction, a statement of objectives or purpose of the research, a brief explanation of the methods or approaches used, the key results of the research and brief conclusion that puts the research findings into context. The body of the abstract should be typed as a single paragraph and must contain complete sentences with correct grammar and spelling. It should not contain references. It is recommended to have the abstract reviewed for English composition, grammar, and style before submission.

Sample Abstract

Determining the Metabolic Organization and Enzymology of the *Citrus sinensis* Flavonoid Biosynthetic Pathway

OWENS, Daniel K., KNITTEL, David K., and PORTER, Lexus N.

¹*Department of Molecular Biosciences and Bioengineering, University of Hawai'i at Manoa, Honolulu, HI 96822*

presenter's e-mail address

The focus of our research program is the analysis of secondary metabolites important for the development and survival of plants that can also be utilized for advantage to humanity. A metabolon is a group of enzymes in a biosynthetic pathway that organize spatially by forming protein-protein interactions generating a supramolecular complex with the ability to channel metabolites among the component enzymes. This advanced level of organization influences competition for shared pathway intermediates, affects flux throughout the metabolic system, helps to increase local substrate concentrations, maintains stability of labile metabolites, as well as acts to isolate potentially damaging or toxic metabolic intermediates and transition states. Although metabolon formation of the flavonoid biosynthetic pathway has been an active area of study, there is little known about formation in species that accumulate early pathway flavonoid subclasses or the role played by core structure derivatization enzymes, such as glycosyltransferases. *Citrus sinensis* is a particularly suitable and agriculturally significant system in which to perform flavonoid

metabolon studies as it produces a popularly consumed food product, flavonoid compounds directly affect its taste characteristics influencing marketability, it uniquely accumulates early flavonoids such as flavones and flavanones, and its genome sequence has recently become available. Furthermore, the existence of “blood” varieties, which exclusively accumulate anthocyanins among citrus species, represents a unique opportunity to investigate the specific impact metabolon formation may have upon anthocyanin biosynthesis. We are currently determining the enzymology and metabolic organization of the *C. sinensis* flavonoid biosynthetic pathway to identify targets for improving the content and quality of flavonoid metabolites for agricultural, nutraceutical, and medicinal applications.