Qualitative Identification of Specific Wood Species from Prepared Wood Products

Laboratories and Scientific Services Directorate (LSSD) is seeking to host one or more National Science Foundation (NSF) student scientists with backgrounds in agricultural science, biology, chemistry or related disciplines to collaborate with LSSD analysts and scientists. LSSD provides forensic and scientific analysis in the areas of trade enforcement, weapons of mass destruction, intellectual property, import safety, and narcotics enforcement. Fulfilling this mission can involve providing technical and scientific advice through testing of finished products for specific information towards enforcing trade policies and regulations or for facilitating legitimate trade commodities.

- **Project Duration:** TBD
- **Start Date:** Spring, summer or fall 2018
- **Location:** LSSD, Long Beach, California

Project Overview

The objective of this project is to conduct research, evaluate test technology capabilities with available resources, develop and refine test methods for instrument application in wood species. In certain wood samples, there may be sufficient thickness for thin sectioning for examination of wood for key characteristics (such as vessels, pores, rays, cells, pits, etc.). However, in cases where there might be an insufficient number of unique characteristics for identification of wood species, the challenge is to find quicker analysis with definitive identification of wood species in manufactured wood products. This project may include, but is not limited to, the following tasks:

- Develop an analytical scheme for current laboratory capabilities, and a refined project proposal to tackle the subject.
- Conduct tests and validate methods for the qualitative identification of specific wood species identified in Harmonized Tariff Schedule of the United States (HTSUS), chapter 44 from manufactured wood products.
- Identify the test technologies necessary for this project and challenges.
- Participate in lab activities such as seminars, webinars, and trainings.
- Present feasibility of this project after initial research and status reports in writing and orally.
- Present analytical scheme with each test methodology.

Qualifications

The ideal candidate will have strong background in wood, forestry and agricultural product experience with strong analytical skills. The candidate shall be detail-oriented, possess excellent organizational, presentation, and written skills, and be able to perform tasks independently with little supervision.

Eligibility Requirements

- Citizenship: U.S. Citizen Only
- Degree: Wood Science, Forestry, or Agricultural and Natural Science
- Discipline(s): variable

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