

State of California  
AIR RESOURCES BOARD

Resolution 06-53

December 7, 2006

Agenda Item No.: 06-11-2

WHEREAS, the Air Resources Board has been directed to carry out an effective research program in conjunction with its efforts to combat air pollution, pursuant to Health and Safety Code Sections 39700 through 39705;

WHEREAS, a proposal Number 12, entitled "Laser Strip: A Portable Hand-Held Laser Stripping Device for Reducing VOC, Toxic, and Particulate Emissions," has been submitted by The Institute for Research and Technical Assistance (IRTA) in response to the 2006 Innovative Clean Air Technologies (ICAT) Program solicitation;

WHEREAS, the proposal has been independently reviewed for technical and business merit by highly qualified individuals; and

WHEREAS, the Research Division staff and the Executive Officer and Deputy Executive Officers have reviewed and recommend for funding:

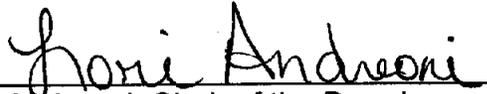
Proposal Number 12, entitled "Laser Strip: A Portable Hand-Held Laser Stripping Device for Reducing VOC, Toxic, and Particulate Emissions," submitted by the Institute for Research and Technical Assistance (IRTA), for a total amount not to exceed \$200,000.

NOW, THEREFORE BE IT RESOLVED, that the Air Resources Board, pursuant to the authority granted by Health and Safety Code Section 39703, hereby approves the following:

Proposal Number 12, entitled "Laser Strip: A Portable Hand-Held Laser Stripping Device for Reducing VOC, Toxic, and Particulate Emissions," submitted by the Institute for Research and Technical Assistance (IRTA), for a total amount not to exceed \$200,000.

BE IT FURTHER RESOLVED, that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and agreements for the efforts proposed herein, and as described in Attachment A, in an amount not to exceed \$200,000.

I hereby certify that the above is a true and correct copy of Resolution 06-53, as adopted by the Air Resources Board.

  
Lori Andreoni, Clerk of the Board

## ATTACHMENT A

Innovative Clean Air Technologies (ICAT) Grant Proposal:

### **“Laser Strip: A Portable Hand-Held Laser Stripping Device for Reducing VOC, Toxic, and Particulate Emissions”**

#### **Background**

A portable laser-based technique for stripping paints and contaminants from surfaces of various kinds of metals, composites, and concretes has been developed. The laser would replace conventional stripping techniques such as methylene chloride and abrasive blasting, thus reducing emissions of a toxic air contaminant (methylene chloride) and particulate matter emissions. The paint stripping process is more efficient with the laser-based technique, and waste disposal and cleanup costs are also reduced.

#### **Objective**

The objective of the project will be to demonstrate the feasibility of the laser-based paint stripping technique as a viable alternative to conventional techniques such as methylene chloride and abrasive blasting.

#### **Methods**

The Institute for Research and Technical Assistance (IRTA) will demonstrate the laser-based paint stripping technology in large applications, such as stripping part of an aircraft, stripping part of a 150 foot high water tank, stripping part of a ship hull, and stripping part of the internal tank of a ship.

#### **Expected Results**

It is expected that the viability of the laser-based paint stripping technology will be demonstrated in this project.

#### **Significance to the Board**

The demonstration of the laser-strip technology would reduce emissions of methylene chloride and particulate matter to be reduced from paint stripping operations.

**Applicant:** Institute for Research and Technical Assistance (IRTA)

**Project Period:** April 2007 to April 2009

**Principal Investigator:** Dr. Katy Wolf

**ICAT Funding:** \$200,000

**Co-funding:** \$307,200

**Past Experience with This Principal Investigator:**

The investigator completed in December 2004 a project to develop and demonstrate alternatives to automotive consumer products that use volatile organic compounds and/or chlorinated organic compound solvents. All tasks of the project were completed successfully and on time. The staff was pleased with the principal investigator's work, and the principal investigator demonstrated the ability to work cooperatively and productively with the staff.

**Prior ICAT Funding to 2006**

Year	2005	2004	2003
Funding	0	0	0

## BUDGET SUMMARY

Institute for Research and Technical Assistance (IRTA)

### "Laser Strip: A Portable Hand-Held Laser Stripping Device for Reducing VOC, Toxic, and Particulate Emissions"

<u>Direct Costs and Benefits</u>	<u>ICAT</u>	<u>Total</u>
1. Labor	\$193,650	\$492,850
2. Employee Fringe Benefits	\$ 0	\$ 0
3. Subcontractors	\$ 0	\$ 0
4. Equipment	\$ 0	\$ 0
5. Travel and Subsistence	\$ 3,350	\$ 3,350
6. Materials and Supplies	\$ 3,000	\$ 3,000
7. Other Direct Costs	<u>\$ 0</u>	<u>\$ 8,000</u>
Total	\$200,000	\$507,200
 <u>Indirect Costs</u>		
1. Overhead	\$ 0	\$ 0
2. Other Indirect Costs	<u>\$ 0</u>	<u>\$ 0</u>
Total	<u>\$ 0</u>	<u>\$ 0</u>
<b>Total Project Costs</b>	<b>\$200,000</b>	<b>\$507,200</b>