



LASER USE AUTHORIZATION FORM

This form must be completed and submitted to EHS for review and approval before starting work and every three years thereafter. Once approved, this SOP must be read and understood by all personnel who will be using this LASER and must be stored near the LASER use area.

Please fill out **ALL** sections of this application as it relates to your research. Incomplete or missing information may delay approval of your research. Once completed, please submit an electronic copy to alawson@andrew.cmu.edu. In addition, you must fax a copy of the signature page to (412)268-1736. If you have any questions, please contact Andrew Lawson at alawson@andrew.cmu.edu or at (412)268-8405.

SECTION I: GENERAL PROJECT DETAILS

Investigator Name:

Department:

Campus Address:

Email:

Phone:

Fax:

Room(s) and building(s) where this project will be conducted:

Title of Protocol:

Anticipated start date:

Anticipated completion date:

Section II: LAB PERSONNEL

Please list all personnel who will be working on this project and indicate who will be the primary contact for this project if it will be someone other than the Principal Investigator.

| Name | Title | Responsibilities | Email |
|------|-------|------------------|-------|
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| Name | Title | Responsibilities | Email |
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SECTION III: LASER DESCRIPTION

Please list the characteristics of the lasers you will be using on this project in the table below.

| Type | Class | Wavelength (nm) | Power (W) | Manufacturer | Model | Pulsed ? (Y/N) |
|------|-------|-----------------|-----------|--------------|-------|----------------|
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SECTION IV: PROJECT DESCRIPTION

In the space below, provide a description of the experimental design. Include information on procedures, methods, and/or manipulations with the lasers used. (Provide information such that the LSC can understand and assess risk.)

SECTION V: NON-BEAM HAZARDS

Please indicate which non-beam hazards will be present in this protocol (check all that apply):

- Chemical (dyes, solvents, etc.)
- Electrical (high voltage, current, etc.)



- Laser generated air contaminants (LGAC)**
- Compressed gasses or cryogenic liquids**
- Fire/ignition source**
- Other (please describe):**

In the space provided below, please describe the control measures that will be used to address the non-beam hazards listed above:

SECTION VI: OPERATING AND SAFETY PROCEDURES

Briefly describe the following as it applies to EACH of your LASERs:

Note: Each LASER used must have its own Operating and Safety Procedures

- a) Target area preparation:
- b) Start up procedures:
- c) Operating procedures (power settings, Q-switch mode, pulse rate, other):
- d) Shut down procedures:
- e) Special procedures (alignment, safety tests, maintenance tests, other):
- f) Emergency procedures:

SECTION VII: LASER EYEWEAR

Please provide information regarding the laser eyewear that will be worn when operating the lasers listed in this protocol. (Please contact the Laser Safety Officer(s) for assistance in selecting the appropriate eyewear):



| LASER EYEWEAR | | | | | |
|--------------------------|------|--------------------|-----------------------------|--------------------|---------|
| For This Laser... | | | ...Wear This Eyewear | | |
| Manufacturer / Model | Type | Wavelength(s) (nm) | Manufacturer/ model | Optical Density OD | Remarks |
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Section VIII: OTHER PERSONAL PROTECTIVE EQUIPMENT (PPE)

Please indicate all other personal protective equipment that will be used in this protocol (check all that apply):

Gloves Lab coat Gown Safety glasses Safety goggles
 Face shield Other (please describe):

SECTION IX: ASSURANCE INFORMATION

- a. I certify that the information provided in this application is complete, accurate and consistent with any proposal(s) submitted to a funding agency.
- b. I agree that I will not begin this project until receipt of official approval from the appropriate committee(s).
- c. I agree that modification to the originally approved project will not take place without prior review and approval by the appropriate committee(s), and that all activities will be performed in accordance with all applicable federal, state, local and University policies.



- d. I will follow applicable laser safety guidelines and regulations,
- e. I will ensure that all personnel have appropriate training including but not limited to: laser safety principles and techniques, laser hazards, non-beam hazards management of accidental spills, and waste management.
- f. I am aware that the Laser Safety Committee (LSC) reserves the right to conduct inspections of the research facilities at any time.
- g. I understand that renewal is required every three years for continuing approved projects
- h. The electronic submission and acceptance of this document at the Laser Safety Office is agreement with the statements a-g (above)

Principal Investigator

Date