

ENGINEERING RESEARCH CENTER FOR EXTREME ULTRAVIOLET SCIENCE AND
TECHNOLOGY

BYLAWS

1.0 The EUV Center

1.1 The Engineering Research Center in Extreme Ultraviolet Science and Technology (referred to hereinafter as the “EUV Center”) has been established by Colorado State University (CSU), Ft. Collins, as a consortium including the following additional “Core Institutions”: the University of Colorado (CU), Boulder, the University of California at Berkeley (UCB), and the Lawrence Berkeley National Laboratory (LBNL). The EUV Center is supported in part by the United States National Science Foundation (NSF) pursuant to NSF contract number EEC-0310717 (the “NSF Contract”).

1.2 The phrase “Core Institutions” as used in this document refers to CSU, CU, UCB and LBNL.

1.3 The “Director” shall be the responsible manager of the EUV Center.

1.4 The EUV Center, the Core Institutions and Corporate Members shall be governed by these “Bylaws” described herein.

2.0 Advisory Boards and Executive Committee

2.1 The Director shall establish an Industrial Advisory Board (IAB) for the purpose of recommending EUV Center research directions that will be of value to industry, and operational policies and mechanisms that will enhance technology transfer from the EUV Center to Corporate Members, Universities, and other organizations.

2.2 The Director shall establish a Science Advisory Board (SAB) for the purpose of recommending EUV Center directions for research that will enhance the EUV Center’s contributions to forefront science and technology based on the development and utilization of compact EUV radiation sources.

2.3 The Director shall establish an Executive Committee for the purpose of assisting the Director in the management of the overall mission, budget, and performance of the EUV Center.

2.4 The Director shall convene meetings of the Executive Committee, the Industrial Advisory Board, or the Science Advisory Board, as deemed necessary.

3.0 Corporate Membership

Any company or organization that is interested in EUV research, development, and technology may become a Corporate Member of the EUV Center upon approval of the EUV Center's Director. For purposes of these Bylaws, members are herein referred to as “Corporate Members” unless otherwise specifically distinguished.

3.1 Membership Categories and Fees

The EUV Center has three levels of Corporate Membership, with membership fee schedules as listed below:

Full Corporate Member (2004) \$50,000/year (up to \$40,000 Directed Fee or Cash Equivalent Fee, remaining as cash)*

Associate Corporate Member (2004) \$25,000/year (cash, Directed Fee, or Cash Equivalent Fee) *

Small Business Corporate Member ** (2004) \$5,000/year (cash, Directed Fee, or Cash Equivalent Fee) *

3.2 Directed Fees

In lieu of the cash annual membership fees described above, and at the sole discretion of the Director, a Corporate Member may offer (as some portion of an equivalent membership fee payment to the EUV Center) a specified contract funding arrangement whereby the Corporate Member funds one or more Core Institutions in efforts related to the EUV Center. Such equivalent contract funding payments shall be defined as a "Directed Fee". The EUV Center Director shall, at his sole discretion, determine the corresponding Corporate Membership time period and level of Corporate Membership obtained by such contract funding arrangement.

3.3 Cash Equivalent Fees

In lieu of the cash annual membership fees described above, and at the sole discretion of the Director, Corporate Members may offer to make an equivalent membership fee payment to an EUV Center Core Institution consisting of software, services, or equipment that the EUV Center would have otherwise purchased. Such equivalent payments shall be defined as a "Cash Equivalent Fee". The EUV Center Director shall, at his sole discretion, determine the terms and conditions of such Cash Equivalent Fee and the corresponding time period and level of Corporate Membership obtained by such contribution based upon the value of the contribution.

3.4 Membership Requirements and Procedures

Each applicant for membership in the Center shall abide by these Bylaws of the EUV Center by signing a Corporate Membership Agreement referencing these Bylaws. Corporate Membership shall only be effective upon receipt by the Center of a properly executed Corporate Membership Agreement and the first payment of the membership fee. A Corporate Member may terminate its membership by providing a two (2) month notice to the Director of the EUV Center, in writing, of its intention to do so.

* It is anticipated that in the years 2005 and beyond, credit for directed research funds will be limited to 50% of membership fees in all corporate membership categories.

** Small Business Corporate Member is defined as having less than 100 employees.

3.5 Corporate Membership Benefits

All Corporate Members will be entitled to the following benefits:

- (a) Significant leveraging of company research and development efforts using Federal and State funds
- (b) Reduced scientific and economic risk by participating in a larger university/industrial research consortium
- (c) Preferential/facilitated access to the EUV Center personnel and facilities
- (d) Ability to participate in setting research directions and programs for the EUV Center
- (e) Industry Advisory Board representation for Full Corporate Members
- (f) Periodic Scientific Advisory Board reports made available to Corporate Members
- (g) Director selected Industry Advisory Board memberships for Associate Corporate Members and Small Business Corporate Members
- (h) Non-exclusive royalty-free license to EUV Center Intellectual Property for Internal Use (as described below)
- (i) Possibility of obtaining an option to a non-exclusive, royalty bearing, license to EUV Center Intellectual Property, for worldwide commercial use
- (j) Early notification of public student research results, reports, theses, and graduations
- (k) First-hand assessment of students and prospective researchers through research projects and internships
- (l) Traditional, continuing, and distributed (web-based) education modules addressing EUV science and technology
- (m) Option to support EUV Scientist/or Engineer-In-Residence at an agreeable Core Institution
- (n) Neutral forum for interactions among suppliers, manufacturers, and end-users

3.6 EUV Scientist or Engineer in Residence

(a) In addition to the benefits described in Section 3.4 above, Corporate Members, with the approval of the Director, have the option to support an EUV Scientist/ Engineer -In-Residence at one or more agreeable EUV Center Core Institutions. The additional EUV Center fee for an In-Residence appointment will be at a rate of \$30,000/year/appointment. Residence may be continuous, periodic, or as directed. The rate of \$30,000/year/appointment EUV Center fee includes office space and typical laboratory-use charges at the intended Core Institution. Each Corporate Member with an In-Residence employee shall be responsible for providing all salary and benefits to its own employee, as well as worker's compensation, insurance coverages, and general comprehensive liability insurance covering its personnel while such personnel are working on-site at a Core Institution in accordance with the provisions of these Bylaws, and in accordance with the specific requirements of the hosting Core Institution.

(b) Recognizing the complexity of Intellectual Property issues that may arise, each In-Residence employee shall be required to execute the resident Core Institution's patent waiver, guest agreement, participating guest agreement, or the like, which effects an assignment of any and all Intellectual Property created by said In-Residence employee to the Core Institution. In this manner, all Corporate Members will have access to EUV Center Intellectual Property.

4.0 Inventions

EUV Center Intellectual Property (IP) means any patent or copyrightable information, inventions, discoveries, or software, conceived and first actually reduced to practice, or copyrighted works of authorship first created, in the course of research funded, in whole or in part, by the United States National Science Foundation through the NSF Contract to the EUV Center. For the avoidance of doubt, nothing in these bylaws shall be deemed to supersede the intellectual property and/or technology transfer policies of any Core Institution. In the event of a conflict between these bylaws and any such policy, the Core Institution policy shall control.

4.1 Ownership of EUV Center IP

4.1.1 Each Core Institution shall inform the Director, where appropriate, of EUV Center IP developed from EUV Center funded work at the Core Institution, which shall be subject to government license and "march-in" rights as required by Federal law.

4.1.2 Where inventorship or authorship of a particular piece of EUV Center IP is shared with one or more Corporate Members, ownership of such EUV Center IP shall be retained by Corporate Member(s) and Core Institution(s) having such inventorship or authorship; such invention or authored work shall also be EUV Center IP controlled by these Bylaws.

4.2 IP Disclosure

4.2.1 EUV Center Personnel shall be defined as any Core Institution employee or student who receives funding from the EUV Center.

4.2.2. EUV Center Personnel shall disclose in a timely manner all EUV Center IP to the respective Core Institution in the form of a written disclosure. Disclosures of any EUV Center IP not previously submitted shall be included with the final research report of the EUV Center.

4.2.3 Each Core Institution receiving an EUV Center IP disclosure shall in turn notify the EUV Center Director in Confidence of such disclosure within one (1) month of such receipt..

4.2.4 The Director shall confidentially communicate EUV Center IP disclosures to all Corporate Members within one (1) month after the EUV Center IP is disclosed to the Director.

4.3 IP Licenses

4.3.1 "Internal Use" means the right to use EUV Center IP for research and development purposes and to evaluate such intellectual property. Internal Use **does not** include the right to incorporate EUV Center IP and derivatives thereof into a product or service offered for sale or purchase, or the right to use EUV Center IP or derivatives thereof in any product manufacturing role, and does not include the right to sublicense any of these internal use rights.

4.3.2 Subject to the conditions of Section 4.5 below, each Corporate Member and Core Institution shall be granted upon request a nonexclusive, worldwide, nontransferable, royalty-free, fully paid-up patent and/or copyright license for EUV Center IP for any Internal Use.

4.3.3 Corporate Members shall have a maximum of three (3) months to evaluate disclosed EUV Center IP. Any Member may, during the evaluation period, request an option to license the disclosed EUV Center IP by paying to the EUV Center the option fee described in Section 4.3.7 below. All remaining Corporate Members will have a period of three (3) months after the first Corporate Member makes such request to decide on whether they also wish an option to license the particular EUV Center IP.

4.3.4 If within the disclosure evaluation time described in Section 4.3.3, only one Corporate Member requests a license to a particular EUV Center IP, and provided such Corporate Member agrees to reimburse the Core Institution for customary, out-of-pocket, patent expenses, the relevant EUV Center Core Institution will, to the extent that it may legally do so, grant an option to that Corporate Member to obtain (a) a non-exclusive, royalty-bearing license to use such EUV Center IP for any purpose except sublicensing, or (b) an exclusive royalty-bearing license with a right to sublicense to corporate subsidiaries only. Reasonable terms and conditions for these licenses are to be negotiated in good faith and agreed upon between the Corporate Member and the EUV Center Core Institution. While the terms will be dependent upon the scope of the license, Corporate Members receiving identical licenses will be offered the same royalty rates. Further, for the same license, Corporate Members will always be offered more favorable royalty rates than those given to non-Corporate Members. Each such option shall extend for a period of three (3) months following agreement on the option to a particular EUV Center IP by the Corporate Member.

4.3.5 If within the disclosure evaluation time described in Section 4.3.3, more than one Corporate Member requests a license and the appropriate EUV Center Core Institution determines that it is possible to grant multiple licenses provided each such Corporate Member agrees to reimburse for customary, out-of-pocket, patent expenses, the appropriate EUV Center Core Institution will, to the extent that it may legally do so, grant an option to each Corporate Member to obtain (a) a non-exclusive, royalty-bearing license to use such EUV Center IP for any purpose except sublicensing within their respective field of use, or (b) an exclusive royalty-bearing license within specified non-overlapping fields of use, with a right to sublicense to their corporate subsidiaries, within their respective field of use. Reasonable terms and conditions—including requirements for due diligence, minimum annual fees, and performance milestones required by the licensee for suitable commercialization of the technology—for these licenses are to be negotiated in good faith and agreed upon between each Corporate Member and the appropriate EUV Center Core Institution. While the terms will be dependent upon the scope of the license, Corporate Members receiving identical licenses will be offered the same royalty rates. Further, for the same license, Corporate Members will always be offered more favorable royalty rates than those given to non-members. Each such option shall extend for a period of three (3) months following agreement on the option to a particular EUV Center IP by the Corporate Member. The Industrial Advisory Board will advise the EUV Center

Director on technology transfer and commercialization plans, licenses and rights, and any conflicts resulting therefrom.

4.3.6 If within the disclosure evaluation time described in Section 4.3.3, no Corporate Member has requested a license to EUV Center IP, other than a license for Internal Use, then the protection and subsequent licensing of the technology will be in accordance with the intellectual property disposition policy of the Core Institution holding the EUV Center IP rights. If, under these circumstances, the appropriate EUV Center Core Institution still chooses to pursue a patent or copyright on EUV Center IP, the IP shall be available to any company (EUV Center Corporate Member or not) interested in licensing the technology on an exclusive or nonexclusive basis.

4.3.7 Should a Corporate Member wish to exercise an option described in Section 4.3.4 or 4.3.5, the Corporate Member shall notify the EUV Center Director in writing and shall include payment of an option fee equal to three thousand United States dollars (US \$3,000). This payment first shall be applied by the EUV Center against patent costs required by Corporate Members or Core Institutions under this section. If a licensing agreement cannot be agreed to between the Corporate Member and the appropriate EUV Center Core Institution any unspent funds shall be returned to the Corporate Member.

4.4 Patent and Copyright Decisions

At each Core Institution, the technology transfer office (or local equivalent function) shall recommend whether or not to seek patent or other intellectual property protection for EUV Center IP. When appropriate, Core Institutions and/or Corporate Members will be provided confidential copies of patent disclosure documentation and afforded the opportunity to provide input in patent prosecution decisions on seeking patent or other intellectual property protection. The EUV Center Director will inform Corporate Members should an EUV Center Core Institution decide not to seek to obtain or maintain intellectual property protection for any patent or copyright application covering EUV Center IP.

4.5 Patent and Copyright Protection Fees

A Corporate Member who requests a license under Sections 4.3.5 agrees to pay a pro rata share of the reasonable costs of patent protection as determined by the lead EUV Center Core Institution.

4.6 EUV Center Retention of IP

Regardless of license rights granted to any Corporate Member, all EUV Center Core Institutions retain at least a nonexclusive, royalty-free license to use EUV Center IP for research or non-commercial purposes.

4.7 Eligibility for IP Licensing Rights

Companies or other organizations joining the EUV Center as Corporate Members shall only be entitled to intellectual property licensing rights to EUV Center IP as defined under this Section 4 at a time six (6) months after the date of joining as a Corporate Member.

5.0 Meetings and Information Dissemination

5.1 Schedule of Center Meetings

5.1.1 The Director shall convene the Industrial Advisory Board (IAB) to meet at least annually to review the EUV Center's research programs and mechanisms for technology transfer.

5.1.2 The Director shall convene the Science Advisor Board (SAB) to meet at least annually to review the EUV Center's research programs for overall scientific direction and potential impact on scientific capabilities.

5.1.3 In addition to progress reports on research and educational programs, the IAB and SAB meetings will include laboratory and test bed demonstrations as appropriate.

5.2 Research Reports

The Director shall prepare an Annual Research Report summarizing each research project conducted by the EUV Center, which shall be provided to all Corporate Members, and shall contain a list of all available technical publications detailing EUV Center research.

5.3 World Wide Web

The EUV Center will publish a web-based newsletter suitable for unlimited distribution summarizing key research activities of its Core Institutions as well as a calendar of key EUV Center events.

6.0 MISCELLANEOUS

6.1 Amendment of Bylaws

6.1.1 Except as provided elsewhere herein, the EUV Center's Executive Committee may propose, by a two-thirds majority vote, to adopt, amend or repeal the Bylaws of the EUV Center (an "Amendment").

6.1.2 Any Amendment to these Bylaws affecting EUV Center Intellectual Property rights shall only apply to those rights accrued by the Corporate Members after the Amendment is implemented.

6.2 Independent Contracts

Nothing in these Bylaws prohibits in any way a Corporate Member's or Core Institution's right to negotiate and contract with one or more of the Core Institutions independently of the EUV Center for any purpose.

7.0 Export Control

The EUV Center, Core Institutions, and Center Members shall each individually observe all applicable United States and foreign laws and regulations (if any) with respect to the export, re-export, diversion or transfer of the EUV Center IP, related technical data and direct

products thereof, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations.