



**National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230**

CBET 12-004

Dear Colleague Letter - The Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET) Employment Opportunities for Program Director

DATE: March 14, 2012

The Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), within the Directorate for Engineering at the National Science Foundation (NSF), announces a nationwide search for an engineering professional to fill the following position: **Program Director: Combustion, Fire, and Plasma Systems Program**

Formal consideration of interested applicants will begin March 19, 2012, with an approximate beginning appointment date of September 1, 2012.

While disciplinary expertise will be expected for the program director, the focus of the search is to locate a scholarly, open-minded, diverse and intellectually integrated individual to join the present team in sharing The Engineering Directorate's responsibilities within NSF's overall mission: to promote the progress of science and engineering; to advance the national health, prosperity, and welfare; and to secure the national defense.

BRIEF PROGRAM DESCRIPTION

The **Combustion, Fire, and Plasma Systems** program supports fundamental research and education on these subjects. Among the broader societal impacts of the program are cleaner global and local environments, enhanced public safety, improved energy and homeland security, useful new materials, and more efficient manufacturing. This program is not an applied program, but rather it endeavors to provide basic knowledge that is needed to develop useful combustion and plasma applications and for mitigating the effects of fire. Broad-based tools - experimental, theoretical, diagnostic, and computational - that can be applied to a variety of problems in combustion, fires, and plasma systems are some of the major products of this program. Areas of interest include: Basic Combustion Science: Laminar and turbulent combustion of gas, liquid, and solid fuels in premixed, non-premixed, partially premixed, and homogeneous modes over a broad range of temperatures, pressures and length scales.

Combustion Science related to Energy and Environment: Such as: (i) increasing efficiency and reducing pollutants, (ii) production and use of renewable fuels, (iii) oxy-fuel combustion, (iv) carbon sequestration, etc. Fire Prevention: Improved scientific understanding of building and forest fires to prevent their spread, inhibit their growth, and cause their suppression. Plasma Systems: Plasma science relevant to combustion, plasma science needed for industrial applications, plasma-processing science relevant to material synthesis.

NSF Program Directors bear the primary responsibility for carrying out the Agency's overall mission. To discharge this responsibility requires not only knowledge in the appropriate disciplines, but also a commitment to high standards, a considerable breadth of interest and receptivity to new ideas, a strong sense of fairness, good judgment, and a high degree of personal integrity.

Qualification requirements include a Ph.D. or equivalent professional experience in the relevant

discipline, plus six or more years of successful research, research administration and/or substantial managerial experience in academe, industry, or government. Appointees are expected to have significant and relevant knowledge of research related to combustion, fire, and plasma systems. Also desirable is knowledge of the general scientific community, skill in written communication and preparation of technical reports, an ability to communicate orally, and several years of successful independent research of the kind normally expected of the academic rank of associate or full professor. Research accomplishments on topics related to combustion, fire and, and plasma systems are highly desirable. All appointees are expected to function effectively both within specific programs and in a team mode, contributing to and coordinating with organizations in the Directorate, across the Foundation, and with other Federal and State government agencies and private-sector organizations as necessary. Such responsibilities can include serving on committees developing new administrative approaches and implementing new focused research activities.

Periodic appointments to leadership of inter-divisional, inter-directorate and interagency programs may be made. NSF is an equal opportunity employer committed to employing a highly qualified staff that reflects the diversity of our nation. Program Director positions recruited under this announcement may be filled by one of the following appointment options:

Intergovernmental Personnel Assignment (IPA) Act: Individuals eligible for an IPA assignment with a Federal agency include employees of State and local government agencies or institutions of higher education, Indian tribal governments, and other eligible organizations in instances where such assignments would be of mutual benefit to the organizations involved. Initial assignments under IPA provisions may be made for a period up to two years, with a possible extension for up to an additional two-year period. The individual remains an employee of the home institution and NSF provides the negotiated funding toward the assignee's salary and benefits. Initial IPA assignments are made for a one-year period and may be extended by mutual agreement.

Visiting Scientist Appointment: Appointment to this position will be made under the Excepted Authority of the NSF Act. Visiting Scientists are on non-paid leave status from their home institution and placed on the NSF payroll. NSF withholds Social Security taxes and pays the home institution's contributions to maintain retirement and fringe benefits (i.e., health benefits and life insurance), either directly to the home institution or to the carrier. Appointments are usually made for a one-year period and may be extended for an additional year by mutual agreement.

Temporary Excepted Service Appointment: Appointment to this position will be made under the Excepted Authority of the NSF Act. Candidates who do not have civil service or reinstatement eligibility will not obtain civil service status if selected. Candidates currently in the competitive service will be required to waive competitive civil service rights if selected. Usual civil service benefits (retirement, health benefits, and life insurance) are applicable for appointments of more than one year. Temporary appointments may not exceed three years.

For additional information on NSF's rotational programs, please see "Programs for Scientists, Engineers, and Educators" on the NSF website at: http://www.nsf.gov/about/career_opps/.

Should you or your colleagues be interested in this position, or wish to nominate suitable candidates, please email a current CV accompanied by a cover letter that highlights the background that specifically relates to the program objectives to:

Dr. Robert Wellek, Search Committee Coordinator, Deputy Division Director
Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
National Science Foundation
4201 Wilson Boulevard, Room 565
Arlington, Virginia 22230
Phone: (703) 292-8320 | Fax: (703) 292-9054 | e-mail: rwellek@nsf.gov

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