

NSF Options to Address Helium Supply Shortage Concerns

<https://www.nsf.gov/pubs/2022/nsf22088/nsf22088.jsp>

Chemistry Office Hour

June 10, 2022

Put your questions into Chat



NSF Options to Address Helium Supply Shortage Concerns

It is a "Dear Colleague Letter (DCL)" ([NSF 22-088](#))

written in response to concerns about a national and global helium shortage that is increasingly impacting the NSF-funded research community

Focuses on ongoing operation and maintenance of sophisticated research instruments via the **acquisition*** of helium recovery systems in shared research instrument facilities

- Nuclear Magnetic Resonance (NMR) spectroscopy systems
- Fourier-transform Ion Cyclotron Resonance (FT-ICR) Mass Spectrometry
- Other instruments with cooled magnets

* **“acquisition”** is used in a broad way and includes the construction of home-build systems too if well justified/described



What is the process for submitting a proposal in response to this DCL?

1. All PAPPG requirements for formatting and content of equipment proposals apply and must be carefully addressed.
2. Emphasis is only on the acquisition of helium recovery systems, not new NMR systems or other instruments that require liquid helium.
3. **Proposals requesting any such new instruments will be returned without review.**

Most competitive proposals are expected to come from shared-use, multi-user, or core-lab academic facilities, not individual labs or commercial entities.

BIO/DBI and MPS/CHE will prioritize funding for proposals that support a large fraction of **BIO or CHE funded researchers**

1. Describe current helium usage, expenses and use projections with recovery systems installed
2. Include facility usage statistics and metrics
3. Include vendor quote(s) for the proposed helium recovery system in “Other Supplementary Documents”
4. Do NOT include letters of collaboration from facility users.
5. How to submit?

Users supported by **NSF/BIO**, submit by July 1, 2022 (FY2022) or by April 1, 2023 (FY2023). Submit proposals to the current PAPPG, directed to the Directorate for Biological Sciences, the Division of Biological Infrastructure, and Cross-BIO Activities Program.

OR

Users supported by **NSF/MPS/CHE**, submit between October 1-31, 2022 (FY2023). Submit proposals to the current PAPPG, directed to the Directorate for Mathematical and Physical Sciences, the Division of Chemistry, and the Chemical Measurement and Imaging (CMI) Program. Proposals submitted outside of this window will be returned without review.

*****Other disciplines** should contact their POs in other Divisions/Directorates



Additional Guidance

1. The “Equipment” **type** of proposal should be selected (see [PAPPG Chapter II.E.10](#)).
2. The **title** of the proposal should begin with “Helium Recovery Equipment:”
3. Per the PAPPG, equipment proposals need “an **overall acquisition plan** which discusses arrangements for acquisition, maintenance, and operation. Equipment to be purchased, modified, or constructed must be described in sufficient detail to allow comparison of its capabilities with the needs of the proposed activities.”
4. **PIs** should be those prepared to execute and oversee the acquisition – not necessarily the primary users.
5. Proposers interested in this opportunity are encouraged to **contact the cognizant program officers** to address any questions about eligibility or allowable expenses.

Cognizant Program Officers:

BIO: Steve Ellis (stellis@nsf.gov), Engin Serpersu (eserpers@nsf.gov), Jaroslaw Majewski (jmajewsk@nsf.gov)

MPS/CHE: Kelsey Cook (kcook@nsf.gov)



Upcoming CHE Office Hours on the Disciplinary Research Programs

Each following office hour will feature a subgroup of CHE DRP programs, discussing the program scope, funding priorities, program portfolio, and recent research highlights. Interfacing with other NSF program(s) will be discussed as well, followed by a Q& A session (https://www.nsf.gov/news/news_summ.jsp?cntn_id=300572&org=CHE).

Office Hour Date (4pm ET)	CHE Disciplinary Research Programs (DRP)	Discussion Leader(s)	Office Hour Zoom Meeting Pre-Registration Link
June 24, 2022	CMI and ECS	Dr. Kelsey Cook and Dr. Anne-Marie Schmoltner	https://nsf.zoomgov.com/meeting/register/vJltfumopjkvE_rzcnjwCL1QtWNBE29YxQX4
July 29, 2022	SYN, CAT, and CSDM-B	Dr. George Richter-Addo, Dr. Jin Cha, Dr. Ken Moloy, and Dr. Tingyu Li	https://nsf.zoomgov.com/meeting/register/vJlscuuvqzgsG1iU_iwH6BVlf7DaFawnHf0
August 26, 2022	CTMC and CSDM-A	Dr. Richard Dawes and Dr. John Papanikolas	https://nsf.zoomgov.com/meeting/register/vJltcuqvrDMiHohhhupEn93upvnyigEfgfU
September 23, 2022	CLP and MSN	Dr. Catalina Achim and Dr. Suk-Wah Tam-Chang	https://nsf.zoomgov.com/meeting/register/vJlisd-6vrTMqHNT3befJ80KLp7v-sXfGpAM

