

#4

**COMPLETE**

**Collector:** Web Link 1 (Web Link)  
**Started:** Wednesday, December 13, 2023 9:43:42 AM  
**Last Modified:** Wednesday, December 13, 2023 11:49:07 AM  
**Time Spent:** 02:05:24  
**IP Address:** 160.227.129.237

---

Page 1: Please review the following:

**Q1**

Contact Person:

Name	<b>Robert Anness</b>
Email Address	<b>robert.anness@gcccd.edu</b>

---

**Q2**

Department:

Chemistry

---

**Q3**

Title of Request:

Melting Point Apparatuses

---

**Q4**

Location of Request:

H Building Chemistry Labs

---

**Q5**

Type of Request (Select one):

**Equipment: Tangible property with a purchase price of at least \$200 and a useful life of more than one year. Technology related items such as hotspots, computers, tablets should be requested through the College Technology Committee**

---

**Q6**

Description of Request: Please provide a description of the supplies, equipment, furniture or other request. When making your request, please be as specific as possible and include information such as make, model, manufacturer, color, quantity, etc.

The Chemistry Department is requesting 8 Melting Point Apparatuses to provide a complete set to students in our organic chemistry classes. The specific product details are as follows: SRS (Stanford Research Systems) MPA160 Melting point apparatus for students (100 to 132 VAC, 50 to 60 Hz).

---

**Q7**

Estimated Cost:

\$9,400

---

**Q8**

Please attach quote, if available

**MP%20Quote%2011-28-23.pdf (92.3KB)**

---

**Q9**

Total Cost of Ownership: Your requested item may incur ongoing expenses. What are the ongoing expenses associated with your request? If there are ongoing expenses, please detail how you plan to support these costs with your existing budget by completing the text boxes below.

Initial Cost of Item	<b>\$9,400</b>
Total	<b>\$9,400</b>

---

**Q10**

Justification of Request: The justification of the request is a key area to focus on. The ROC encourages you to strengthen your request by providing a robust rationale detailing all relevant criteria. When writing the rationale, keep in mind that those reviewing the justification may not be familiar with your department and needs. Providing detailed information and context can help clarify the need for your request. Please select the applicable criteria(s) and provide the details of how the criteria(s) relate to your request.

**Health and safety,**

**Critical need,**

**Program expansion,**

**Impact on student success and access,**

**Innovation,**

**Equity and Antiracism,**

Provided details::

Enrolment in our Chem 231 (Organic Chemistry 1) class increased significantly around the mid 2010s and we added Chem 232 (Organic Chemistry 2) to our course roster for the first time in 2016. Melting point apparatuses are used regularly in organic chemistry labs in general, and in the majority of experiments in Chem 232. We had been using a mix of mostly very old analog melting point apparatuses from the 70s as well as some more "modern" (still analog) 90s-era devices. However, we never had enough equipment for a full class. Several years ago we started ordering digital, programmable melting point apparatus to bring us into the 21st century and meet the needs of the class. These are the same devices we are requesting here. They have held up extremely well with no need for maintenance or repair in the several years that we've had them. They are also by far the most popular choice for students in my classes. We've been using the chemistry budget to fund these so we've only been able to order a few at a time. At this point we've had to phase out all but a few of the older melting point apparatuses as they've become obsolete and are no longer worth repairing. We still don't have enough devices for a full class section, which means that students end up having to wait to use the instruments until they become available. Melting Point analysis is usually one of the last steps in an experiment and unfortunately, less confident students tend to work slower and end up being the ones waiting to use the apparatuses since they are first come, first serve. This only compounds stress and anxiety for these students since the additional wait time after already being behind makes it less likely for them to finish their experiment on time. Even if they are able to finish, they often have to rush the procedure leading to less desirable results and potential safety hazards. The quantity of melting point apparatuses requested here would provide us with enough devices for a full class section, plus one extra as a backup.

**Q11**

Program Goal: Please identify the program goal(s), as stated in your current annual or comprehensive program review, that this request would help your program achieve. Provide a brief explanation of how it would do so.

Our program is working on multiple fronts to try and increase success and retention rates in our chemistry classes, while eliminating equity gaps. As mentioned in the previous section, a shortage of properly functioning equipment can create bottlenecks that can lead to time-stress for students. Students from disproportionately impacted groups can tend to feel these stresses more acutely as they are compounded with other societal and institutional inequities. Anything we can do to reduce student stress in these lab classes should have a positive effect on success and retention rates.

---