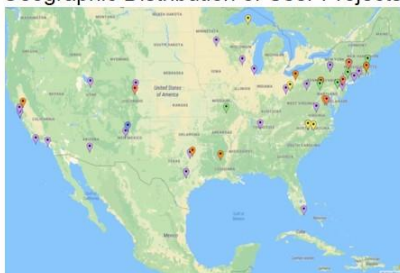


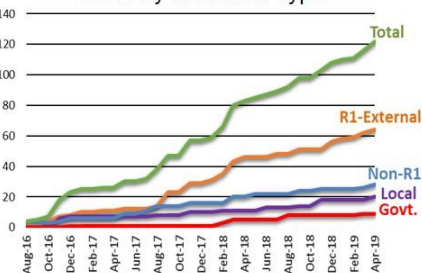


The Pennsylvania State University, N-338 Millennium Science Complex, University Park, PA 16802

Geographic Distribution of User Projects



Users by Institution Type



**User Career Level**

53% Faculty (19% Assistant Prof.)  
30% Grad/Undergrad Students  
17% Postdoc/Other Research Staff

**Senior User Demographics**

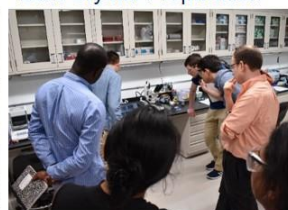
33% Female  
18% URM

**Hands-on Training**

Thin Film Transfer



Bulk Crystal Preparation



Monthly Webinars



REU Site



**What Has Been Achieved:** The 2DCC has established sustained growth in its user program. Since 2016, the 2DCC has engaged a diverse community of current and potential users through its education/outreach/diversity programs that have employed knowledge sharing initiatives such as hands-on training in synthesis and characterization, annual user meeting, and live webinars (featuring tutorials, research results and the science of diversity and inclusion), and training of next generation 2D scientists through its REU Site in Scalable Nanomanufacturing of Complex Materials. The 2DCC user base is diverse in geographic distribution, demographics, institutional types and career levels. In 2018, the 2DCC celebrated a major milestone in welcoming its 100<sup>th</sup> user with the user base now surpassing 120.

**Importance of Achievement:** The 2D community in chalcogenide synthesis, characterization and simulation is engaged, sharing knowledge and publishing high quality research.

**Unique Features of the MIP That Enabled Project:** The 2DCC platform has 3 main pillars (in-house research, external user program, and education/outreach/diversity activities in support of the research). These 3 pillars are tightly integrated to ensure high quality research that is synergistic with the user program and education/outreach/diversity programs that broaden participation in all 2DCC activities as well as provide training for the next generation of 2D researchers.