Claudia Khourey-Bowers, Ph.D

Associate Professor
TLC
cmkhoure@kent.edu

Education

Ph.D., Science Education, Curriculum and Instruction **1995**
Kent State University
Dr. Doris Simonis and Dr. James Henderson, advisors,

M.S., Biology **1981**
University of Akron

B.S., Zoology **1975**
Ohio State University
Bachelor of Science, Zoology, cum laude, The Ohio State University. 1975.

Higher Education Work Experience

Associate Professor **08/2006 - present**
Teaching, Leadership & Curriculum Studies, Kent State University- Stark

Asst. Professor, TLC **8/2000 - 7/2006**
Kent State University- Stark

Other Professional Experience

P.I / Co-P.I. Conceptual Biology **01/2008 - present**
KSU
Professional develoment program in biology for secondary teachers, funded through OBR

P.I. / Co-P.I., Conceptual Chemistry **01/2005 - present**
KSU
Professional development program in chemistry for middle grades teachers, funded through OBR

Co-Principal Investigator, SATURN **6/1999 - present**

Stark county Schools

Local Systemic Initiative for Middle and High school Science teachers

Member, **8/1998 - 8/1999**

Ohio Department of Education

Exit Exam Science Proficiency Competencies Development Committee, 1998-1999.

President **8/1998 - 8/1999**

Ohio Section of The American Association of Physics Teachers

Committee member **8/1998 - 8/1999**

Kent State University

Middle Childhood Licensure in Science Program Development 1998-9.

Consultant **8/1997 - present**

Mayfield Heights City Schools, Mid-Ohio

Curriculum design, Educational Service Center, and various community-based organizations. 1997 - Present.

Instructor **8/1997 - 8/2000**

Kent State University

Graduate School College of Education, 1997 - 2000.

Science Curriculum Specialist **8/1996 - 8/2000**

Canton City Schools

Accomplishments included design and implementation of new strand of secondary standards-based courses.

Principal Investigator **08/1994 - 08/1999**

Grassroots Science Teacher-Leadership Institute

Principal Investigator, Grassroots Science Teacher-Leadership Institute,funded by National Science Foundation, for systemic professional development program focused in Canton City Schools. 1994-99.

Publications

Khourey-Bowers, C. *A Multi-perspective learning-teaching tool*. Invited work by United Nations Education, Scientific and Cultural Organization (UNESCO), Paris, France. Under review.. Fall 2010 - Spring 2011. 2011

Publication: *Curriculum*

Khourey-Bowers, C. *A Multi-perspective learning-teaching tool*. Invited work by United Nations Education, Scientific and Cultural Organization (UNESCO), Paris, France. Under review.. Fall 2010 - Spring 2011. 2011

Publication: *Curriculum*

Khourey-Bowers, C. (2011). Active learning strategies: The top ten. The Science Teacher, 33(4):28 - 32. 2011

Publication: *Journal Articles, Refereed*

Khourey-Bowers, C. (2010). Intercultural approach to science education through constructivism and the four pillars, (Eds.) Berlin, D & White, A. in *Promising Practices to Meet Global Challenges in Science and Mathematics Education.* Columbus, OH: International Consortium for Research in Science and Mathematics Education. 2010

Publication: *Book Chapters*

Lawson, A.E. (2010). How ''scientific'' Is science education research? *Journal of Research In Science Teaching, 47*(3), 257–275. 2010

Publication: *Citations*

Norton-Meier, L., Tippett, C., Hand, B. & Yore, L. (2010). Professional Development in Teaching Disciplinary Writing in the Context of International Science Reform Efforts. in*Putting writing research into practice: Applications for teacher professional development*. Eds. Gary A. Troia, Rebecca K. Shankland, and Anne Heintz.2010. GuilfordPress. NY, NY. 2010

Publication: *Citations*

Smith, Mike U. (2010). Current Status of Research in Teaching and Learning Evolution: II. Pedagogical Issues..*Science & Education,19,* 539–571. DOI 10.1007/s11191-009 9216-4 2010

Publication: *Citations*

Larkin, D.B., Seyforth, S.C., & Lasky, H. J. (2009). Implementing and sustaining science curriculum reform: A Study of leadership practices among teachers within a high school science department.*Journal of Research In Science Teaching, 46*(7), 813–835 2009

Publication: *Citations*

Nelson, T.H.(2009). Building leadership capacity by nurturing leadership..In Eds. Wieseman, K. C. & Weinburgh, M. H.. *Women's experiences in leadership in k-16 science education communities: Becoming and being*.pp. 167-181. 2009

Publication: *Citations*

Cook, Kristin. (2009). A Suggested project-based evolution unit for high school: Teaching content through application*The American Biology Teacher, 71*(2):95-98. 2009 DOI: 10.1662/005.071.0209 2009

Publication: *Citations*

Khourey-Bowers, C. & Fenk, C. (2009).Influence of constructivist professional development on chemistry content knowledge and scientific model development, Journal of Science Teacher Education, 20(5): 437-457. DOI: 10.1007/s10972-009-9140-0 2009

Publication: *Journal Articles, Refereed*

Khourey-Bowers, C. (2009). Big ideas at a very small scale. *Science Scope*, 33(4):26 - 30. 2009

Publication: *Journal Articles, Refereed*

Ray, B. B., & Coulter, G. A. (2008). Reflective practices among language arts teachers: The Use of weblogs. *Contemporary Issues in Technology and Teacher Education, 8*(1). Retrieved from http://www.citejournal.org/vol8/iss1/languagearts/article1.cfm 2008

Publication: *Citations*

Khourey-Bowers, C. (2008.) *Structured Academic Controversy.* (invited and refereed) Part of the series, 2008
Pedagogy in Action: Science Education Resource Center, Carleton College. At: http://serc.carleton.edu/sp/library/pedagogies.html

Publication: *Curriculum*

Melville, W. & Wallace, J.(2007). Metaphorical duality: High school subject departments as both communities and organizations. *Teaching and Teacher Education, 23*(7), 1193-1205. 2007

Publication: *Citations*

2007

Melville, W., Wallace, J. & and Bartley, A. (2007).Individuals and leadership in an Australian secondary science department: A Qualitative study. *Journal of Science Education and Technology,16*(6), 463-472. DOI: 10.1007/s10956-007-9081-3

Publication: *Citations*

Martin, J. J., McCaughtry, N., Hodges-Kulinna, P., & Cothran, D. (2007).The influences of professional development on teachers' self-efficacy toward educational change.*Physical Education & Sport Pedagogy, 13*(2), 171 – 190. DOI: 10.1080/17408980701345683 2007

Publication: *Citations*

Delaney, C.J. & Shafer, F.K. (2007). Teaching to multiple intelligences by following a slime trail. *Middle School Journal, 39*(1), 38-43. 2007

Publication: *Citations*

Khourey-Bowers, C. and Croley, C. (2007). Teaching content through the arts: Art detectives. Educational Leadership. Vol. 64(8): 51 - 52. 2007

Publication: *Journal Articles, Refereed*

Structured Academic Controversy: A Peaceful approach to controversial issues. The American Biology Teacher 68(5). Online publication only at: http://www.nabt.org/sub/pdf/068-05-0008.pdf 2006

Publication: *Journal Articles, Refereed*

Cultivating positive attitudes and higher achievement in middle level mathematics and science. Middle School Journal 36(3):50 - 56. January 2005. 2005

Publication: *Journal Articles, Refereed*

Influence of a shared leadership model in creating a school culture of inquiry and collegiality. Journal of Research in Science Teaching. 42(1): 3 - 24. 2005

Publication: *Journal Articles, Refereed*

Designing an effective and personalized virtual learning environment. AURCO Journal 11:117-127. 2005

Publication: *Journal Articles, Refereed*

Emergent reflective dialogue among pre-service teachers mediated through a virtual learning environment. Journal of Computing in Teacher Education 21(4):85-90. 2005

Publication: *Journal Articles, Refereed*

Longitudinal study of middle grades chemistry professional development: Enhancement of personal science teaching self-efficacy and outcome expectancy. Journal of Science Teacher Education 15(3): 175-195. 2004

Publication: *Journal Articles, Refereed*

Canals in the curriculum: A Model of integration and inquiry.â€ ScienceScope. October 2002: 39 - 42. 2002

Publication: *Journal Articles, Refereed*

Upsetting the Newtonian applecart: The Integration of art and physics. The Science Teacher. Vol. 62: 18 - 23. 1995. 1995

Publication: *Journal Articles, Refereed*

Publication: *Curriculum*

Publication: *Curriculum*

Presentations

Khourey-Bowers, C. & Christenson, S. “Energizing Science,” Science Education Conference of Ohio (SECO), Akron, Ohio, February 7, 2008. 2008

Type: *Regional Refereed*

Khourey-Bowers, C. & Christenson, S. “Newton on the Cheap,” Science Education Conference of Ohio (SECO), Akron, Ohio, February 7, 2008. 2008

Type: *Regional Refereed*

Fenk, C., Gerbig, D., & Khourey-Bowers, C. “Conceptual Chemistry: DNA Extraction from Animal and Plant Cells-It’s Easier Than You Think,” Science Education Conference of Ohio (SECO), Akron, Ohio, February 8, 2008. 2008

Type: *Regional Refereed*

Khourey-Bowers, C. “Education for All: The Four Pillars and Constructivism in International Science Education,” 2008 International Consortium for Research in Science and Mathematics Education, Quito, Ecuador, May 2008. 2008

Type: *International Refereed*

Fenk, C. & Khourey-Bowers, C. “Conceptual Chemistry: Forensic Detection of Amino Acids, Proteins and Artificial Sweeteners,” Science Education Conference of Ohio (SECO), Dayton, Ohio, February 9, 2007. 2007

Type: *Regional Refereed*

Khourey-Bowers, C. “Teaching for conceptual change in middle grades science methods course,” Content and Pedagogy for Mathematics and Science in Middle Schools and for Middle School Teacher Preparation conference, Columbus, Ohio, April 26, 2007. 2007

Type: *Regional Refereed*

Khourey-Bowers, C. & Fenk, C. “Influence of Professional Development on Chemistry Content Knowledge,” Content and Pedagogy for Mathematics and Science in Middle Schools and for Middle School Teacher Preparation conference, Columbus, Ohio, April 27, 2007. 2007

Type: *Regional Refereed*

Khourey-Bowers, C. and Fenk, C. “Influence of Chemistry Professional Development Program on Chemistry Content Knowledge,” National Association for Research in Science Teaching (NARST) 2007 International Conference, St. Louis, April 16, 2007. 2007

Type: *International Refereed*

Fenk, C. & Khourey-Bowers, C. “Conceptual Chemistry,” Science Education Conference of Ohio (SECO), Akron, Ohio, February 17, 2006. 2006

Type: *Regional Refereed*

Khourey-Bowers, C. “Quality Science Lessons: Trends and Questions about 8th and 9th grade lessons,” submitted to the Assoc. for Science Teacher Education 2006 International Conference, Portland, OR, Jan. 2006. 2006

Type: *International Refereed*

Khourey-Bowers, C. and Dinko, R. “Relationship between professional development and student achievement,” Association for the Education of Teachers of Science (AETS) 2005 International Conference, Jan. 20, 2005. 2005

Type: *International Refereed*

Weinstein, M., Sherman, W., Khourey-Bowers, C., & Gilbert, A. “But How Do We…? Case Studies in Program Development,” Association for the Education of Teachers of Science (AETS) 2005 International Conference, Colorado Springs, CO, Jan. 22, 2005. 2005

Type: *International Refereed*

Bowers, “Evaluating discussion as a learning strategy,” presented as part of the KSU Early Career Teaching Scholars Learning Community at the Lily-West Annual Conference, Pomona, CA, March 18, 2005 2005

Type: *National Refereed*

Khourey-Bowers, C. & Dinko, R. “Relationship between professional development and student achievement,” National Association for Research in Science Teaching (NARST) 2005 International Conference, Dallas, April 6, 2005. 2005

Type: *National Refereed*

Finer, K., Fox-Cardamone, L., Heaphy, L. & Khourey Bowers, C. Design and implementation of a multidisciplinary course linking science and public policy, presented at the American Society for Microbiology, 105th General Meeting, Atlanta, GA. June, 2005. 2005

Type: *National Refereed*

Khourey-Bowers, C. “Designing an Effective and Personalized Virtual Learning Environment,” AURCO annual conference, April 17, 2004. 2004

Type: *Regional Refereed*

Khourey-Bowers, C., Rice, L., Wieland, J. and Yoder, M. “A Peaceful Approach to Controversial Issues,” National Science Teachers Association, 2004 Annual Conference, April 1, 2004. 2004

Type: *National Refereed*

Khourey-Bowers, C., Rice, L., Wieland, J. and Yoder, M. ""Transforming Big Ideas into Best Practice," National Science Teachers Association, 2004 Annual Conference, April 2, 2004. 2004

Type: *National Refereed*

Arhar, J., Khourey-Bowers, C, and Friesen, D. "Action research and school improvement," National Middle School Assn. 2004 Annual Conference, Minneapolis, MN, Nov. 4, 2004. 2004

Type: *National Refereed*

Khourey-Bowers, C. and Dinko, R. "Realities and Perceptions in the Middle School Science Classroom," School Science and Math Assn. 2004 Annual Conference, Atlanta, GA, Oct. 21, 2004. 2004

Type: *National Refereed*

Khourey-Bowers, C. "The town-gown conflict over Inquiry or Didactic Science: Accommodation of pre-service students," School Science and Math Assn. 2004 Annual Conference, Atlanta, GA, Oct.22, 2004. 2004

Type: *National Refereed*

"Implementing a Standards-Based Secondary Curriculum in an Urban District" National Association for Research in Science Teaching annual conference, New Orleans, 4/00. 2004

Type: *National Refereed*

Khourey-Bowers, C. "Addressing teachers' beliefs about evolution through use of structured academic controversy," School Science and Mathematics Assn. Annual Conference, Columbus, OH, Oct. 23, 2003. 2003

Type: *National Refereed*

Khourey-Bowers, C. "Designing Integrated Teaching Units," Invited paper presented as part of the collaborative presentation, "How to Begin, Revise, and Continue to Develop an Excellent Middle Grades Program at the annual conference of the National Middle School Assn., Nov. 7, 2003. 2003

Type: *National Refereed*

Arhar, J. and Khourey-Bowers, C. "Professional development and school improvement through action research," National Middle School Assn. 2003 Annual Conference, Nov. 8, 2003. 2003

Type: *National Refereed*

Khourey-Bowers, C. & Pelletier-Patrick, B. "Praxis II is here, and Praxis III is coming!" Invited paper presented at the Ohio Art Education Assn. annual convention, Dayton, Nov. 19, 2002. 2002

Type: *Regional Refereed*

Finer, K., Barb, C. & Khourey-Bowers, C "Promoting and modeling inquiry in a science content course" Pathways for Learning Symposium, Arlington, VA Apr 20, 2002. 2002

Type: *National Refereed*

Khourey-Bowers, C. & Dinko, R "Context beliefs of lead teachers: Implications for secondary science reform" National Association for Research in Science Teaching 2002 International Conference, New Orleans, April 9, 2002. 2002

Type: *National Refereed*

Khourey-Bowers, C. “Community-based learning experiences.” Presented as part of “How to Begin, Revise, and Continue to Develop an Excellent Middle Grades Program National Middle School Assn Annual Conf, Portland, OR. Nov. 1, 2002. 2002

Type: *National Refereed*

Arhar, J. & Khourey-Bowers, C. “Studying your own classroom or school: An Action research approach,” National Middle School Assn 2002 Annual Conference, Portland, OR, Oct. 31, 2002. 2002

Type: *National Refereed*

"Science and Literacy" paper presentation at the Science Education Council of Ohio (SECO) conference, Cleveland, OH 2/00. 2002

Type: *Local Refereed*

Kist, W. & Khourey-Bowers, C. “Building a site-based education program with local middle schools.” Paper presented at the annual AURCO conference, Kent State University-Stark, April 2001 2001

Type: *Regional Refereed*

Khourey-Bowers, C. “The Ohio-Erie Canal: A Model of Integration and inquiry.” National Science Teachers Assoc. Annual Conference, Columbus, OH Nov. 2001. 2001

Type: *National Refereed*

Khourey-Bowers, C. “Science and literacy.” Paper presented at the annual conference of the Science Education Council of Ohio, Cleveland, Feb. 2000. 2000

Type: *Regional Refereed*

"Interpretation of Design Process of Ohio Exit Science Competencies," presented at Stark County Assessment Action Team meeting, 9/99. 1999

Type: *Local Refereed*

"Science and Literacy,"poster presentation at the SECO conference, Dayton, OH 2/99. 1999

Type: *State Refereed*

"Systemic Change in Urban Schools" presented at the annual School Science and Mathematics conference, Milwaukee, WI, 10/98. 1998

Type: *National Refereed*

"Grassroots Science and the Urban Web: Professional development meshed with the infrastructure of an urban district," invited presentations at the The QEM Network/Technical Assistance Project conference, Cleveland, OH 11/8/96; and QEM Sixth Annual National Conference, Washington, D.C. 2/7/97. 1997

Type: *National Refereed*

"City Science/Country Science," presented at the National Science Teachers annual meeting, New Orleans, LA. 4/3/97. 1997

Type: *National Refereed*

â€œ Grassroots Science: A Model for Systemic Change,â€ presented at the annual Research Consortium of Kent State University, Kent, OH, 3/15/96. 1996

Type: *Local Refereed*

"A is for Astronomy," presented at the Science Education Council of Ohio annual meeting, Columbus, OH 2/15/96 and the National Science Teachers' Association national meeting, St. Louis, MO 3/28/96. 1996

Type: *National Refereed*

Grassroots Science: Change from Within,: presented at the National Association for Research in Science Teaching annual meeting, St. Louis, MO 3/31/96. 1996

Type: *National Refereed*

Service

Member, Committee II **2007 - 2008**

Type: *University*

Member, MCED/EFSS Search Committee **2007 - 2008**

Type: *University*

Member, Academic Planning Committee **2007 - 2008**

Type: *University*

Co-chair, Cabinet and Faculty Council **2006 - 2007**

Type: *University*

Member, CAC, College of Education, Health, and Human Services **2006 - 2008**

Type: *University*

Member, Cabinet and Faculty Council **2005 - 2006**

Member, Faculty Council Teaching Circles **2005 - 2006**

Type: *University*

Member, Undergraduate Appeals, COEHSS, Professional Standards, & Admissions **2005 - 2006**

Type: *University*

Member, Campus Activities Budget Committee **2004 - 2006**

Type: *University*

Member, Math-Science Outreach Coordinator Search Committee **2004 - 2004**

Type: *University*

Member, Math-Science Partnership (MSP) Outreach Advisory Committee **2004 - 2006**

Type: *University*

Member, Service Learning Committee **2004 - 2005**

Type: *University*

Member, Kent State Stark Dean Search Committee **2004 - 2005**

Type: *University*

Member, Faculty Council **2004 - 2006**

Type: *University*

Advisory Board, Kent Stark Student Education Association **2004 - present**

Type: *University*

Chair, Math Education Search Committee **2003 - 2004**

Type: *University*

Member, Symposium on Democracy Planning Committee **2003 - 2004**

Type: *University*

Coordinate, Annual appreciation /orientation event for local teachers who provide field **2001 - present**

Coordinate, Annual Spring Orientation session for incoming MCED **2001 - present**

Member, Math Education Search Committee **2001 - 2002**

Type: *University*

Member, 2001 Distinguished Teaching Award Committee **2001 - 2001**

Type: *University*

Reviewer, AURCO Journal **2001 - present**

Type: *University*

Member, University Council on Teacher Education **2001 - 2003**

Type: *University*

Member, Regents Scholars Committee **2001 - 2002**

Type: *University*

Host, **2000 - present**
Academic Reception
Type: *Department*

RCET Proposal Reviewer, **2000 - present**

Type: *Department*

Presider, Midwest Writer's Conference **2000 - 2000**

Type: *University*

Member, National Middle School Association **2000 - present**

Type: *Professional Memberships*

Reviewer, Proposal Reviewer, KSU Regional Center Educational Technology **2000 - present**

Type: *University*

Member, School Science and Mathematics Association **1996 - present**

Type: *Professional Memberships*

Member, Association for the Education of Teachers of Science **1996 - present**

Type: *Professional Memberships*

Member, National Association of Research in Science Teaching. **1994 - present**

Type: *Professional Memberships*

Kent State University **1994 - 1994**

Type: *University*

- present

Grants

Co PI, Conceptual Chemistry for teachers of Grades 4 – 9 **2011 - 2012**
Collaboration with: Drs. Christopher Fenk and Claudia Khourey-Bowers
Submitted: $128,855.00 Status: Awarded
Awarded: $128,855.00 (1 2011)
Ohio Board of Regents - Applied Research

PI, Conceptual Chemistry for teachers of Grades 4 – 9 **2010 - 2011**

Collaboration with: Drs. Claudia Khourey-Bowers and Christopher Fenk
Awarded: $106,072.00 (1 2010)
Ohio Board of Regents - Applied Research

Co PI, Conceptual Biology for Techers of Grades 6 - 12 **2008 - 2009**
Provides content knowlegde and pedaogogical content knowledge for teachers.
Collaboration with: Drs. Donald Gerbig and Claudia Khourey-Bowers
Awarded: $126,365.00 (1 2008)
Ohio Board of Regents - Applied Research

PI, Conceptual Biology for teachers of Grades 6 – 12 **2008 - 2009**
Collaboration with: Drs. Claudia Khourey-Bowers and Donald Gerbig
Awarded: $115,425.00 (0 0)
Ohio Board of Regents - Applied Research

PI, Conceptual Chemistry for Teachers of Grades 4 - 9 **2008 - 2009**
Awarded: $143,367.00 (1 2008)
Ohio Board of Regents - Applied Research

Co PI, Conceptual Chemistry for Teachers of Grades 4 - 9 **2007 - 2008**
Provides content knowledge and pedagogical content knowledge for teachers.
Collaboration with: Drs. Christopher Fenk and Claudia Khourey-Bowers
Awarded: $137,092.00 (0 0)
Ohio Board of Regents - Applied Research

PI, Conceptual Chemistry for Teachers of Grades 3 - 8 **2006 - 2006**
Professional development program in chemical education pedagogy, administered by the Ohio Board of Regents.
Collaboration with: Drs. Claudia Khourey-Bowers and Christopher Fenk
Submitted: $134,000.00 Status: Awarded
Awarded: $134,000.00 (1 2006)
Ohio Board of Regents - Applied Research

Co PI, Conceptual Chemistry for Teachers of Grades 4 - 9 **2005 - 2005**
Professional development program in chemical education pedagogy, administered by the Ohio Board of Regents.
Collaboration with: Drs. Christopher Fenk and Claudia Khourey-Bowers
Submitted: $117,000.00 Status: Awarded
Awarded: $117,000.00 (1 2005)
Ohio Board of Regents - Applied Research

PI, Elementary Science Kits **2000 - present**
Professional development program for promoting use of hands-on, minds-on science approaches for teachers of kindergarten through grade 5, ""Elementary Science Kits,"" funded through Martha Holden Jennings Foundation, $24,000, 2000
Awarded: $24,000.00 (0 0)
Martha Holden Jennings Foundation - Applied Research

Co PI, Local systemic initiative for middle and high school science teachers **1999 - 2004**

Local systemic initiative for middle and high school science teachers, ""SATURN,"" funded by the National Science Foundation, $1,100,000. 1999- 2004

Collaboration with: other faculty members

Awarded: 1.1 million (0 0)

National Science Foundation - Basic Research

Co PI, Science and Literacy **1998 - 1999**

Professional development program fusing science education and nonfiction reading skills, ""Science and Literacy,"" for teachers of grades 2 and 3. Funded by the Ohio Board of Regents, a collaboration between Canton City Schools and Ashland University, $73,000, 1998-99

Awarded: $73,000.00 (0 0)

Ohio Board of Regents - Basic Research

Co PI, Bridges II **1997 - 1998**

Minority teacher recruitment program, ""Bridges II,"" funded through the Ohio Department of Education, in collaboration with Kent State University, $48,863, 1997- 1998 and funded through the Sisters of Charity Foundation, $24,000, 1998

Awarded: $24,000.00 (0 0)

Sisters of Charity - Training

Co PI, Studying Physics through Art: A Collaborative **1996 - 1996**

Curriculum infusion project, Studying Physics through Art: A Collaborative Enterprise,"" funded through Martha Holden Jennings Grants-to- Teachers Program, $1,935. 1996

Collaboration with: Dr. Claudia Khourey-Bowers and Ms. Cynthia Croley

Awarded: $1,935.00 (0 0)

Martha Holden Jennings Foundation - Basic Research

PI, Grassroots Science Teacher-Leadership Institute **1994 - 1999**

Professional development systemic reform program in pre-high school science education, \"\"Grassroots Science Teacher-Leadership Institute\"\", funded by the National Science Foundation, $736,098. 1994-1999

Collaboration with: Claudia Khourey-Bowers

Awarded: $736,098.00 (0 0)

National Science Foundation - Basic Research