

Curriculum Vitae

Anne Gaquere-Parker, PhD.

Associate Professor

Department of Chemistry

University of West Georgia

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Teaching

A. Employment History

Associate Professor, Department of Chemistry, University of West Georgia, **Fall 2012-present**

Uteach College of Science and Mathematics co-director, University of West Georgia, **Fall 2015-present**

Assistant Professor, Department of Chemistry, University of West Georgia, **Fall 2009-2012**

Director, Study Abroad Program, Art – History of Science, University of West Georgia, **Fall 2007-present**

Organic Laboratory Coordinator, Department of Chemistry, University of West Georgia, **Fall 2006-2014**

Departmental Safety Coordinator, Department of Chemistry, University of West Georgia, **Fall 2006-2014**

Lecturer, Department of Chemistry, University of West Georgia, **Fall 2006-2009**

Visiting Assistant Professor, Department of Chemistry, University of West Georgia, **Fall 2002-2006**

Post Doctoral Research Associate, Department of Chemistry, Clark Atlanta University, **2000-2002**

Teaching Assistant, Department of Chemistry, Morehouse College, **2001-2002**

Organic Chemistry Laboratory Instructor, University Institute of Technology of Rouen, France, **1997-1999**

B. Courses Taught

<i>Course Number</i>	<i>Course Name</i>	<i>Date</i>
CHEM 1100	Introductory Chemistry	F05, U07, U08, U09, U10, U11, F11, U12, F12, U13, F13, U14, F14
CHEM 1100L	Introductory Chemistry Lab	F11, F12, F13, F14
CHEM 1151K	Survey of Chemistry I	F05, F06, F09, F10, F11, F12, F13, F14, S15
CHEM 1152K	Survey of Chemistry II	S03, S04, S05, S06, S07, S08, S09, S10, S11, S12
CHEM1211K	Principles of Chemistry I	F02, F03, S03, U06, S14, F14, S15
CHEM1212K	Principles of Chemistry II	U07, F11, S12, F12, S13, F13
CHEM 2411	Organic Chemistry I	F04, F05, F06, S06, S07, F07, F08
CHEM 2411L	Organic Chemistry I Lab	F02, F03, F04, S05, F07, S08, F08, S09, F09, S10, F10, S11, F11, S12, S13, S14
CHEM 3422	Organic Chemistry II	U03, U04, U07
CHEM 3422L	Organic Chemistry II Lab	S03, U03, S04, U04, S05, U07
CHEM 4003 ¹	Hist. Phil. of Science (WAC)	U09, U11
CHEM 4083	Faculty Directed Research	U03-present
CHEM 4385 ²	Adv. Topics Analyt. Chem.	U08, U09, U10, U12, U13
CHEM 4920	Environmental Chemistry	S04, U06
XIDS 2202	Environmental Studies	S06, U08
ART 4985	Art Restoration	U10, U11
ART 4985	Art in France	U10, U11, U12, U13, U14
STEM 4385	Perspectives Science & Math	S13, F13, S14, S15

¹: cross listed with HIST 3301

²: cross listed with ART 4985: Special Topics

C. Course Development

1. Introductory Chemistry: Chemistry of Art
2. Introductory Chemistry Lab: Chemistry of Art
3. Advanced Topics in Analytical Chemistry: Technical Analysis in Art
4. Hist. Phil. of Science
5. Special Topics in Art: Art Restoration
6. Special Topics in Art: Art in France
7. Perspectives in Sciences and Mathematics

D. Undergraduate Research Student Work Directed (SRAP, GEMS, Faculty Directed Research), Total number of undergraduate research students supervised: 48

Student	Project	Date
48. Aubrey Folds	Sonication of amylase	2015
47. Ashley Rizzo	Sonication of amylase	2014
46. Amanda Dismukes	Chemistry and Art	2013
45. Todd Kaminski	Analysis of gemstones	2013
44. Ashley Rizzo	Sonication of amylase	2013
43. Shatina Oglesbee	Sonication of amylase	2013
42. Donna Hoyle	Ceramics and chemistry	2012
41. Shannon Harshaw	Sonication of amylase	2012
40. Annika Roberts	Fullerol synthesis	2012
39. Christian Rodriguez	Fullerol synthesis	2012
38. Bilal Hussein	Sonication of amylase	2012
37. Aaron Arruda	Sonication of amylase	2012
36. Thomas Cochran	Art restoration	2012
35. Abigail Norton	Art restoration	2011-12
34. Kelly Lawson	Art restoration and Gasoline analysis	2011-12
33. Anthony Darden	Carbon nanotubes and surfactants	2010
32. Alex Priest	Carbon nanotubes and surfactants	2010
31. Ryan Crowder	Paint pigment analysis	2009-10
30. Neelam Zahoor	Carbon nanotubes and surfactants	2009-10
29. Joseph Holmes	Carbon nanotubes and surfactants	2008-09
28. Dennis Kinuthia	Sonodegradation of Blue Mordant 9	2006-08
27. Ashley Blasiolo	Carbon nanotubes	2007-08
26. Sarah Brooks	Fullerol analysis	2008
	Pesticide analysis	2007
25. Bintu Marong	Sonodegradation of 2,4,5-trichlorophenol	2005-08

24. Ayan Ahmed	Degradation of an-azo dye under ultrasounds	2005-07
	Paper de-Inking	2007
23. Nicholas Rhodes	Identification of pesticides in milk	2006-07
22. Patricia Saponari	Identification of pesticides in milk	2006-07
21. Jonathan Williamson	Carbon nanotubes sedimentation	2006-07
	Reactivity of C ₆₀ and C ₇₀ towards cycloaddition	2006
20. Courtney Richardson	Gasoline analysis	2007
19. Shavelle Gant	Gasoline analysis	2007
18. Michelle Logue	Gasoline analysis	2007
17. Kimberly Sutton	Gasoline analysis	2007
16. Phoebe Tchoua	Sonodegradation of 2,4,5-trichlorophenol	2005-06
15. Melanie Cox	Identification of pesticides in milk	2006-07
14. Robert James	Identification of pesticides in milk	2006-07
13. Christopher Wust	Reactivity of C ₆₀ and C ₇₀ towards cycloaddition	2006
12. Michael Minyard	Reactivity of C ₆₀ and C ₇₀ towards cycloaddition	2006
11. Kelvin Rembert	Carbon nanotubes sedimentation	2006
10. Nicholas Nicholson	Carbon nanotubes sedimentation	2006
9. Dawn Lindquist	Sonoremediation of trichlorophenol	2004-06
8. Temitayo Isola	Paper de-inking	2004-06
7. Sharon Reed	Sonoremediation of trichlorophenol	2004-05
6. Christopher Shacklady	Paper de-Inking	2005-06
5. Linda S. Blosser	Organic milk	2004-05
4. Sara Susach	Organic milk	2005
3. Joshua Chance	Sonodegradation of 2,4,5-trichlorophenol	2005
2. Erum Raja	Sonodegradation of 2,4,5-trichlorophenol	2004
1. Gina Smith	Dye-sensitized organic photovoltaic cells	2003-04

E. Student Presentations at National, Regional, State Meetings

(Students underlined)

33. Ashley Rizzo, Anne Gaquere-Parker, "Hydrolysis of azure starch by Alpha-Amylase under various conditions", SERMACS, **2014**, *Poster*.

32. Ashley Rizzo, Anne Gaquere-Parker, "Temperature Study on the Effects of the Sonication of Alpha-Amylase", SERMACS, **2013**, *Poster*.
31. Bilal Hussein, Aaron Arruda, Anne Gaquere-Parker, "Effect of ultrasounds on enzyme activity", SERMACS, **2012**, *Poster*.
30. Donna Hoyle, David Collins, Anne Gaquere-Parker, "Combining art and chemistry: A chemistry experiment in the ceramics studio", SERMACS, **2012**, *Poster*.
29. Mark Williams, Ajith De Silva, Javier Hasbun, Sharmistha Basu-Dutt, Anne Gaquere, "Mondo grass berry pigments for dye-sensitized solar cells", Georgia Academy of Science, Spring **2011**, *Oral presentation*.
28. Victoria Martin, Ajith De Silva, Javier Hasbun, Sharmistha Basu-Dutt, Anne Gaquere, "Dye-sensitized photovoltaic cells using natural dyes extracted from Mondo grass berries", Georgia Academy of Science, Spring **2011**, *Oral presentation*.
27. Anthony Darden, Anne Gaquere-Parker, "Spectroscopic Analysis of C₆₀, C₇₀ and C₆₀ Derivative C₆₀(OH)_n", SERMACS, Fall **2010**, *Poster*.
26. Neelam Zahoor, Anne Gaquere-Parker, "Effect of sonication on the kinetics of enzymes", SERMACS, Fall **2010**, *Poster*.
25. Ryan Crowder, Anne Gaquere-Parker, "Technical analysis of a 19th century painting", SERMACS, Fall **2010**, *Poster*.
24. Dennis Kinuthia, Ayan Ahmed, Temitayo Isola, Bintu Marong, Anne Gaquere-Parker, "Degradation of an azo-dye under ultrasounds", Sigma Xi, National meeting, Fall **2007**, *Poster*.
23. Dennis Kinuthia, Ayan Ahmed, Temitayo Isola, Bintu Marong, Anne Gaquere-Parker, "Degradation of mordant blue 9 under ultrasounds", SERMACS, Fall **2007**, *Poster*.
22. Jonathan Williamson, Anne Gaquere-Parker, Farooq Khan, "Sedimentation rate of multi wall carbon nanotubes in ten organic solvents and systematic study of the influence of two series of surfactants", SERMACS, Fall **2007**. *Oral presentation. **The student won second place in his section.***
21. Jonathan Williamson, Anne Gaquere-Parker, Farooq Khan, "Sedimentation rate of multi wall carbon nanotubes in ten organic solvents and systematic study of the influence of two series of surfactants", SERMACS, Fall **2007**, *Poster*.
20. Anne Gaquere, Sharmistha Basu-Dutt, Dawn Lindquist, Erum Raja, Sharon Reed, Cass Parker, "Degradation of 2,4,5-trichlorophenol under ultrasounds", SERMACS, Fall **2006**, *Poster*.

19. Jonathan Williamson, Kelvin Rembert, Joseph Grable, Smit Patel, Anne Gaquere, Farooq Khan, “Carbon nanotubes sedimentation in various organic solvents: Effect of surfactants”, SERMACS, Fall **2006**, *Poster*.
18. Dennis Kinuthia, Ayan Ahmed, Temitayo Isola, Bintu Marong, Anne Gaquere-Parker, “Degradation of an azo-dye under ultrasounds”, SERMACS, Fall **2006**, *Poster*.
17. Dennis Kinuthia, Anne Gaquere-Parker, “Degradation of an azo-dye under ultrasounds”, SERMACS, Fall **2006**, *Oral Presentation*.
16. Robert James, Patricia Saponari, Nicholas Rhodes, Melanie Cox, Anne Gaquere-Parker “Identification of traces of commercially available chlorinated pesticides in several milks using solid phase extraction and gas chromatography mass spectrometry”, SERMACS, Fall **2006**, *Poster*.
15. Ayan Ahmed, Temitayo Isola, Anne Gaquere, “Degradation of an azo-dye under ultrasounds”, ACS, Spring **2006**, *Poster*.
14. Lynda Blosser, Anne Gaquere, “Comparative study on regular and organic milk”, ACS, Spring **2006**, *Poster*.
13. Christopher Shacklady, Temitayo Isola, Anne Gaquere, “Paper de-inking using environmental friendly oxidizing agents under ultrasounds”, ACS, Spring **2006**, *Poster*.
12. Anne Gaquere, Sharmistha Basu-Dutt, Dawn Lindquist, Erum Raja, Sharon Reed, Cass Parker, “Degradation of 2,4,5-trichlorophenol under ultrasounds”, ACS, Spring **2006**, *Poster*.
11. Michael Minyard, Nicholas Nicholson, Christopher Shacklady, Jonathan Williamson, Christopher Wust, Anne Gaquere, Farooq Khan, “Carbon nanotubes sedimentation in various solvents and C60 functionalization under ultrasounds”, ACS, Spring **2006**, *Poster*.
10. Ayan Ahmed, Anne Gaquere, “Degradation of an azo-dye under ultrasounds”, GCHC, Spring **2006**, *Oral presentation*.
9. Christopher Shacklady, Anne Gaquere, “Paper de-inking using environmental friendly oxidizing agents under ultrasounds”, GCHC, Spring **2006**, *Oral presentation*.
8. Ayan Ahmed, Temitayo Isola, Anne Gaquere, “Degradation of an azo-dye under ultrasounds”, EPA/ASTER/CDC meeting in Atlanta, Spring **2006**, *Poster*.
7. Christopher Shacklady, Anne Gaquere, “Paper de-inking using environmental friendly oxidizing agents under ultrasounds”, NCHC, Fall **2005**, *Poster*.
6. Lynda Blosser, Anne Gaquere, “How chemically different are regular and organic milk?”, NCHC, Fall **2005**, *Poster*.

5. Lynda Blosser, Anne Gaquere, “How chemically different are regular and organic milk?”, NCUR, Spring **2005**, *Poster*.
4. Anne Gaquere, Temitayo Isola, Cass Parker, “Paper de-inking using environmental friendly oxidizing agents under ultrasounds”, SERMACS, Fall **2004**, *Poster*.
3. Anne Gaquere, Sharmistha Basu-Dutt, Dawn Lindquist, Erum Raja, Sharon Reed, Cass Parker, “Sonoremediation of trichlorophenol”, SERMACS, Fall **2004**, *Poster*.
2. Sharmistha Basu-Dutt, Anne Gaquere, Vishal Amin, Rip Philipp, Sharon Reed, Erum Raja, Y. Abiodun, “Degradation of simazine in various environments”, SERMACS, Fall **2004**, *Poster*.
1. Anne Gaquere, Gina Smith, Toma Omonuwa, Allison Bailes, Cass Parker, “Dye-sensitized organic photovoltaic cells: preliminary tests”, SERMACS, Fall **2003**, *Poster*.

F. Student Presentations at UWG

(Students underlined)

18. Aubrey Folds, Anne Gaquere-Parker, “Synergistic effect of the Sonication and Heat on the Enzymatic Activity of Alpha-Amylase for the Hydrolysis of Starch Azure”, Big Night, **2015**, *Poster*.
17. Ashley Rizzo, Anne Gaquere-Parker, “Temperature Study on the Effects of the Sonication of Alpha-Amylase”, Big Night, **2014**, *Poster*.
16. Ashley Rizzo, Anne Gaquere-Parker, “Effect of ultrasounds on enzyme activity”, Big Night, **2013**, *Poster*.
15. Aaron Arruda, Bilal Hussein, Anne Gaquere-Parker, “Effect of ultrasounds on enzyme activity”, Sigma Xi/Research Day **2011**, *Oral presentation*.
14. Victoria Martin, Anne Gaquere-Parker, Javier Hasbun, Ajith De Silva, “Dye-sensitized photovoltaic cells using natural dyes extracted from Mondo grass berries”, Big Night, **2011**, *Oral presentation*.
13. Abigail Norton, Anne Gaquere-Parker, “Gas chromatography of fatty acids potentially found in oil paintings”, Big Night, **2011**, *Poster*.
12. Victoria Martin, Anne Gaquere-Parker, Javier Hasbun, Ajith De Silva, “Dye-sensitized photovoltaic cells using natural dyes extracted from Mondo grass berries”, Sigma Xi/Research Day, **2011**, *Oral presentation*. **The student won first place.**
11. Jonathan Williamson, Farooq Khan, Anne Gaquere, “Carbon nanotubes sedimentation in various solvents and C60 functionalization under ultrasounds”, Big Night, **2007**, *Poster*.

10. Ayan Ahmed, Bintu Marong, Dennis Kinuthia, Anne Gaquere, "Sonophotodegradation of blue mordant 9: a comparative study", Big Night, **2007**, *Poster*.
9. Jonathan Williamson, Farooq Khan, Anne Gaquere, "Carbon nanotubes sedimentation in various solvents", Sigma Xi/Research Day **2007**, *Oral presentation*.
8. Joshua Chance, Bintu Marong, Phoebe Tchoua, Sharmistha Dutt, Cass Parker, Anne Gaquere, "Degradation of 2,4,5-trichlorophenol under ultrasounds", Big Night, **2006**, *Poster*.
7. Temitayo Isola, Christopher Shacklady, Cass Parker, Anne Gaquere, "Factors affecting deinking by sonication", Big Night, **2006**, *Poster*.
6. Robert James, Patricia Saponari, Nicholas Rhodes, Melanie Cox, Anne Gaquere, "Pesticide analysis", Big Night, **2006**, *Poster*.
5. Ayan Ahmed, Temitayo Isola, Cass Parker, Anne Gaquere, "Deinking by sonication", Big Night, **2006**, *Poster*.
4. Jonathan Williamson, Michael Minyard, Christopher Wust, Farooq Khan, Anne Gaquere, "Carbon nanotubes sedimentation", Big Night, **2006**, *Poster*.
3. Ayan Ahmed, Anne Gaquere, "Sonication and deinking", Sigma Xi/Research Day **2006**, *Oral presentation*.
2. Christopher Shacklady, Anne Gaquere, "Temperature affecting deinking by sonication", Sigma Xi/Research Day **2006**, *Oral presentation*.
1. Temitayo Isola, Anne Gaquere, "Ink sonication", Sigma Xi/Research Day **2005**, *Oral presentation*.

G. Student Senior Thesis

11. Kelly Lawson, "Gasoline analysis by GC MS", Fall **2011**.
10. Neelam Zahoor, "Effect of sonication on the kinetics of enzymes", Fall **2010**.
9. Anthony Darden, "Spectroscopic Analysis of C₆₀, C₇₀ and C₆₀ Derivative C₆₀ (OH)_n", Fall **2010**.
8. Ryan Crowder, "Technical analysis of a 19th century painting", Fall **2010**.
7. Sarah Brooks, "Study of fullerenes: C₇₀ and C₆₀(OH)_n", Fall **2008**.
6. Bintu Marong, "Effective means of degrading industrial waste under ultrasounds; Azo-dye", Spring **2008**.

5. Ayan Ahmed, “Degradation of an-azo dye under ultrasounds”, Spring **2008**.
4. Jonathan Williamson, “Comparison of the influence of solvent/surfactant systems on the stability of double wall and multi wall carbon nanotubes”, Spring **2008**, (with Dr Farooq Khan)
3. Nicholas Rhodes, “Analysis of pesticides (chlorinated and organophosphates) in milk and water with solid phase extraction (SPE) and gas chromatography mass spectrometry (GCMS)”, Spring **2007**.
2. Patricia Saponari, “Identifying triazine pesticides using a GCMS”, Spring **2007**.
1. Christopher Wust, “UV-Vis observation of carbon nanotubes in dispersion for comparison of relative purities and sedimentation rates”, Spring **2006**, (with Dr Farooq Khan).

Service to Institution

A. University Wide Committee

- Barrier Team Sub-Committee, present
- Provost faculty advisory committee, 2014-present
- Representative of International Programs at freshmen orientation, 2011-12
- International Programs and Services Taskforce Committee, Spring 2011
- SRAP Committee, Spring 2011-2013
- Big Night committee, Spring 2011-2013
- Ad Hoc Committee on the Structure of the College of Arts and Sciences, 2008
- Faculty representative on the Homeland Security Committee (2007-2009)

B. College of Sciences and Mathematics Committee

- Hiring committee for new UWise-coordinator, Fall 2013
- Review of mini-grant proposals and research proposals for the UWise program (2012-2014)
- COSM Excellence in Teaching Award Committee, Spring 2011.

C. Departmental Services

- Chair of the search committee for a chemistry instructor, present.

- Science study abroad program director, 2014-15
- COSM preview day, Fall 2014 (Saturday October 11th)
- Chemistry representative at University Preview Day, 2008-present
- Academic advising (Pre-Pharmacy and BA students), Fall 2006-present
- Organic chemistry laboratory coordinator, Fall 2006 - Fall 2014: prepare chemicals on a weekly basis, check on the lab daily, advertise with career services to recruit teaching assistants, prepare orders for all chemicals and materials, cleans and organizes the lab rooms, check 180 drawers at the end or beginning of each semester, prepare the waste prior to disposal, provide faculty with students check-in slips.
- Safety departmental coordinator, Fall 2006-2014
- Obtained funds through Tech Fee grants for departmental purchase: clickers, FT Infra-Red instrument, Raman spectrophotometer, X-Ray Fluorescence photometer and UV Vis spectrophotometer (please see internal grants section).
- Summer orientation: meet with parents of incoming freshmen and advise incoming chemistry majors, Summer 2009-present

D. Other Services to Institution

- I was one of the COSM faculty representatives for the SAACS 2014 visit.
- I volunteered to redesign the laboratory kit and proofread all the chemistry materials for eCore (chemistry 1211 and 1212)
- I was selected to do an audio commercial for the university. I met with the vice-president of marketing at UWG and then went to Atlanta to record the advertisement which is now being broadcasted on radio stations, Fall 2013
- I set up the chemistry laboratory and helped by providing all necessary glassware and chemicals for the commercial campaign photo-shoot, 2013.
- I set up and participated in the UTeach photo-shoot campaign, 2013.
- UWise co-coordinator, 2012-2014
- Analysis by XRF two human skulls for the forensics laboratory on campus, once looking for metal-based pigment residue on the outside of the skull and the second time analyzing the chemical composition of the dental alloys, 2013

- Analysis of half a dozen of artifacts at the Murphy center inside the UWG library looking for potential arsenic residue, 2013
- Moderator, UWISE research day 2012
- Participated in a 2-day trip to UMBC, Baltimore in Fall 2012, representing UWG on behalf of the vice-president office as part of a college-wide team
- Director of the Art Study Abroad Program (2007-present): stay with the students during the trip, take them places, prepare meals if needed, do all paperwork pertaining to the art study abroad program, prior during and after each summer trip (book for every portion of the trip including airfare, hotels, trains, museums, buses, prepare P-card statement, reconcile budget, advertise for the program, recruit faculty and students, prepare purchase order, assist students in every aspect during the trip)
- Instructor of freshman seminar (FYE) UWG 1101 (2007-2012)
- Graduation guide, Fall 2006 (program director: Dr Scot Lingrell): advised five at-risk students from across campus.
- Faculty orientation leader, Summer 2006 and 2007
- President of the local Sigma Xi chapter, 2005-2008
- Treasurer of the local Sigma Xi chapter, 2004-2005
- Faculty Advisor of Student Association: Gamma Sigma Sigma, National Community Service Sorority, 2004-2005

E. Community Services

- Atlanta Science Festival: STEAM program, chemistry and art at the Fernbank Science center, March 2015
- Science Night at Villa Rica middle school, March 2015: Chemistry and Art
- International program sponsored series of talks: UWG in the World. I gave a talk about the chemistry and art study abroad program at Bremen library, May 2014
- "Chemistry and Art day": I organized a meeting in the chemistry laboratory where 22 Villa Rica high school students came and performed experiments on campus with their teacher, Mrs. Nancy Hasbun, 2013.
- Analysis of a 15th century mortar and pestle of Spanish origin. It was determined based on density and XRF analysis that the hidden metal in the handle of the pestle was lead and not a precious metal as the historical records of the object led the owner to believe, 2013.

- Analysis of a Rubens painting from the 17th century by XRF, Raman, UV and IR reflectography for an art restorator based in Marietta, 2013.
- Session leader for IMPACT program 2008 and 2009
- Chemistry demonstrations at Montessori school, 2007-2014
- Chemistry demonstrations at the UWG Child development center, 2006-07

Academic Achievement

A. Degrees

- Associate degree in Chemistry, University Institute of Technology of Rouen, France, **1993**.
- B.S. in Chemistry, University of Rouen, France, **1994**.
- M. Sc. in Chemistry (major: Organic Chemistry, minor: Inorganic and Analytical Chemistry), University of Rouen, France, **1995**.
Master Thesis Subject: Synthesis of nitrogen-containing fused heterocycles.
Advisors: G. Queguiner and N. Ple.
- D.E.A. (Extensive Studies Diploma, IRCOF), *Specialty:* Organic Chemistry, University of Rouen, France, **1996**.
D.E.A. Thesis Subject: Study of the formation of organozinc compounds in the diazine series.
Advisors: G. Queguiner, A. Turck, N. Ple.
- Ph.D. in Chemistry with Highest Honors, *Specialty:* Organic Chemistry, IRCOF (Institut de Recherche en Chimie Organique Fine), France, **2000**.
Ph. D. Thesis Subject : Synthesis and Reactivity of Organometallic Compounds (Li, Zn, Mg, Cu) in π -Deficient Series (Diazines, Pyridine). Optimisation under Sonication.
Advisors: G. Queguiner, A. Turck, N. Ple.

B. Research Position

Post-doctoral research associate, Clark Atlanta University, Atlanta, Ga, 2000-2002
Subject: Salen-Mn(III)-Catalyzed Epoxidation
Advisor: X. R. Bu

C. Honors, Fellowships, Certificates

- Nationally Certified Quality Matters Peer-Reviewer for online courses, 2014
- Honor Society of Phi Kappa Phi member, 2013-present
- Recipient of the "College Of Arts And Sciences Excellence In Teaching Award **2009-2010**"

- Ph.D. in Chemistry with Highest Honor (< 5 % of Ph.D. candidates university-wide)

Professional Growth and Development

A. Memberships in Professional Organizations

American Chemical Society (2003-present)

American Institute of Conservation (2009-2013)

Sigma Xi (2004-2008)

B. Professional Service

- Reviewer for textbook ancillaries, General, Organic and Biochemistry Clinical Tutorial, by Karen Timberlake
- TQG grant reviewers, Fall 2013 and 2014 (review of proposals for the “Improving Teacher’s Quality Education Program”)
- Arsenic analysis of objects stored at the campus library, 2012
- Reviewer for the magazine “Nature”, 2010-2011
- Reviewer of one article for the journal “Chemical Engineering Journal”, 2010
- Reviewer of one article for the journal “Bioresources”, 2010
- Judge at the research paper competition, Sigma Xi, Spring 2007
- Member of the nanotechnology committee on campus, 2006
- Nanotech Business Alliance, 2005-2006
- Gave a presentation at the NanoBusiness Alliance meeting, Spring 2006, Chamber of Commerce, Carrollton: “Sonochemistry: Application in Nanotechnology”
- Judge at the science fair for Bay Spring High School, Spring 2005
- Reviewer for the U.S. Civilian Research and Development Foundation (CRDF), 2004
- Reviewer of one article for the journal “Molecules”, 2004
- Judge at the research paper competition, Sigma Xi, Spring 2004
- Judge at the Regional Science Bowl, Spring 2004

- Science fair judge: West Georgia Regional Science and Engineering Fair, Spring 2004

C. Publications (myself underlined, * corresponding author)

Book

2. A. Gaquere-Parker*, C.D. Parker, Textbook, “Chemistry and Art”, 2nd edition, Kendall Hunt publisher, **2014**.

1. A. Gaquere-Parker*, C.D. Parker, Textbook, “Chemistry and Art”, 1st edition, Kendall Hunt publisher, **2013**.

Book chapters

3. A. Gaquere-Parker*, C.D. Parker, Book Chapter in “Collaborative Endeavors in the Chemical Analysis of Art and Cultural Heritage Materials”: Bridging the Gap of Art and Chemistry at the Introductory Level, **2012**, ACS Symposium series.

2. A. Gaquere-Parker*, C.D. Parker, Book Chapter in “Sonochemistry: Theory, Reactions, Syntheses and Applications”: Application of ultrasounds to carbon nanotubes, Editor: Filip Nowak, Novapublishers, **2010**.

1. A. Gaquere-Parker*, C.D. Parker, Book Chapter in “Sonochemistry: Theory, Reactions, Syntheses and Applications”: Use of ultrasonication in the production and reaction of C₆₀ and C₇₀ fullerenes, Editor: Filip Nowak, Novapublishers, **2010**.

Journal Articles

14. Ajith DeSilva*, D. Pitigala, Ryan Landry, J. E. Hasbun and A. Gaquere and A. U. Perera, Manuscript in preparation, Visible to near infrared absorption in natural dye (Mondo-Grass berry) for Dye Sensitized Solar Cell.

13. Anne Gaquere-Parker*, Nancy Doles, Amanda Yi, Todd Kaminski, Manuscript in preparation, Engaging students with chemistry and art hands-on activities in a large lecture hall.

12. Anne Gaquere-Parker*, Nancy Doles, accepted with minor revisions and resubmitted to *J. Chem. Educ.*, Painting with malachite: A STEAM outreach experiment.

11. Anne Gaquere-Parker*, Patricia Hill, Michael Haaf, Cass Parker, Nancy Doles, Amanda Yi, Todd Kaminski, accepted with revisions to *J. Chem. Educ.*, Capturing zinc yellow: The exploration of binding media using a safer alternative to lead-based chrome yellow.

10. J. Brett Kimbrell, Christopher M. Crittenden, Walter J. Steward, Farooq A. Khan, A.C. Gaquere-Parker and D. A. Stuart*, *Nanoscience Methods*, 3, 1, **2014**, 40-46: Analysis of mixtures of C₆₀ and C₇₀ by Raman Spectrometry.

9. William Livernois, Christopher M. Crittenden, J. Brett Kimbrell, Farooq A. Khan, Anne C. Gaquere-Parker, and Douglas A. Stuart*, *Chem. Educator*, **2014**, *19*, 1–6: Raman Spectroscopy of Allotropes of Carbon: An Undergraduate Laboratory.
8. A. Gaquere-Parker*, K. Lawson, M. Logue, K. Sutton, C. Richardson and S. Gant, *Chem. Educator*, **2011**, *16*, 1–4: Heat of combustion and GC-MS of regular, regular-plus and premium gasoline: An undergraduate experiment.
7. A. Gaquere-Parker*, A. Ahmed, T. Isola, B. Marong, C. Shacklady, P. Tchoua, *Ultrasonics, Sonochemistry*, **2009**, *16*, 698-703: Temperature effect on an ultrasound-assisted paper de-inking process.
6. A. Gaquere, S. Liang, F.L. Hsu, X. R. Bu*, *Tetrahedron: Asymmetry*, **2002**, *13*, 2089: The Readily Available tert-Pentyl Group As a Most Effective Simple Directing Group for Asymmetric Synthesis: a Case Study on Salen-Mn(III)-Catalyzed Epoxidation.
5. A. Lepretre, A. Turck, N. Ple and G. Queguiner*, *Tetrahedron*, **2000**, *56*, 3709-3716: Organolithium Derivatives of Diazines and Pyridine at Room Temperature under the Influence of Ultrasounds. Diazines XXIX.
4. A. Lepretre, A. Turck, N. Ple, P. Knochel and G. Queguiner*, *Tetrahedron*, **2000**, *56*, 265-274: First Study of Syntheses and Reactivity of Grignard Compounds in the Diazine Series. Diazines XXVII.
3. M. Rottländer, L. Boymond, L. Berillon, A. Lepretre, G. Varchi, S. Avolio, H. Laaziri, G. Queguiner, A. Ricci, G. Cahiez, P. Knochel*, *Chemistry, a European Journal*, **2000**, *6*, 767-770: New Polyfunctional Magnesium Reagents for Organic Synthesis.
2. L. Berillon, A. Lepretre, A. Turck, N. Ple, G. Queguiner, G. Cahiez, P. Knochel*, *Synlett* **1998**, 1359-1360: Preparation of Highly Pyridylmagnesium Reagents for the Synthesis of Polyfunctional Pyridines.
1. A. Turck, N. Ple, A. Lepretre-Gaquere, G. Queguiner*, *Heterocycles* **1998**, *49*, 205: Organozinc Derivatives of Diazines, Metalation of Diazines XXIII.

D. Papers Read and Abstracts Published at National, Regional, State Meetings

Note: Please see also the list of students' presentations in Teaching, section: Student Presentations at National, Regional, State Meetings.

11. Oral presentation at SERMACS, **2013**, “Contextualizing chemistry with art”
10. Oral presentation, invited speaker, at ACS **2013**, Indianapolis, “Enhancing undergraduate chemistry education through incorporation of art-based experiments”

9. Poster presentation, invited speaker, at ACS **2013**, Indianapolis, “Enhancing undergraduate chemistry education through incorporation of art-based experiments”
8. NSF-PI meeting, Washington DC, **2013**, poster presentation, “Chemistry and Art”
7. Oral presentation at SERMACS, **2012**, “Engaging students with art-based activities: an NSF-TUES sponsored endeavor”.
6. Oral presentation with co-presenters Dr. Harrison and Dr. Mruthinti, STEM conference, Statesboro, Ga, March **2013**, “UWise”
5. Anne Gaquere-Parker, invited presenter, poster presentation at Gordon conference, **2011**, “Undergraduate adventures in Art and Chemistry”.
4. Anne Gaquere-Parker, invited speaker, oral presentation at ACS **2010** in San Francisco, “Art and Chemistry: A True Connection”.
3. Anne Gaquere-Parker, poster presentation at SERMACS **2009**, “Art and Chemistry: A True Connection”.
2. Anne Gaquere, Poster and Oral Communication at ANORCQ (Anglo-Norman Organic Chemistry colloQuim), **1999**: “Grignard reagents in the Diazine series”.
1. Anne Gaquere, Oral Communication at the French Society of Chemistry, **1999**: “Organometallics in the diazine series”.

E. Papers Read at UWG

3. Anne Gaquere-Parker, oral presentation, COSM teaching seminar series, **2013**, “Chemistry and Art”.
2. Anne Gaquere-Parker, oral presentation at STEM institute meeting **2010** (UWG campus), “Experiences in Teaching a Cross-Listed Advanced Analytic Chemistry Course with Chemistry and Art Students”.
1. Center of Teaching and Learning, “The use of internet in the classroom”, **2006**

F. Other National, Regional, State Meetings Attended

- TQG project directors meeting, UGA, **2015**
- National AAUC-PKAL, STEM conference and pre-conference workshop on reforming STEM education, Atlanta, **2014**
- SoTL conference, UWG **2014**
- TQG project directors meeting, UGA, **2014**

- UTEACH, June 2012, Austin, TX, **2012**
- Pittcon, Analytical chemistry, Orlando, **2012**
- AACU-PKAL, Science Education Meeting, Miami, **2011**
- SERMACS, New Orleans, **2010**
- Sigma-Xi national meeting, Montreal, **2007**
- Sigma-Xi national meeting, Orlando, **2004**
- PKAL meeting, Boulder, **2003**

G. Funding

(i) External Grants, Funded or pending

Funding agency	Amount	Period
Power of the Purse, PI: Anne Gaquere West Georgia Community Foundation –: “Bonding Over Science: A Public Library / University Training Partnership for Teen Science Education, <i>co-PI: Martha Goodson</i>	\$1,000	2015
Atlanta Science Festival, STEAM grant PI: Anne Gaquere Chemistry and Art at the Atlanta Science festival	\$500	2014-15
Teacher’s quality grant, PI: Anne Gaquere CHEMISTRY and ART, co-PI: Alison Parker	\$ 39,000	2015
Teacher’s quality grant, PI: Anne Gaquere CHEMISTRY and ART, co-PI: Alison Ayers	\$ 31,000	2014
NSF-WIDER, co-PI: Anne Gaquere Wider Implementation of STEM Educational Reforms (WISER) Practices Planning Grant: Setting the Stage for Institutional Commitment to Evidence-Based Teaching and Learning, PI: Farooq Khan	\$250,000	2013
Teacher’s quality grant, PI: Anne Gaquere CHEMISTRY and ART, co-PI: Alison Ayers	\$ 55,000	2013
UTEACH, collaborator UTeach program, PI: Dianne Hoff, Co-PIs: C. Tabit, M. Hooper	\$1,400,000	2011-2015

BOR STEM II initiative, collaborator \$344,058 2011-2012
 UWISE: University of West Georgia Institutional STEM Excellence, PI: Myrna Gantner, Co-PI:
 S. Swamy Mruthinti.

NSF-TUES, *PI: Anne Gaquere* \$162,938 2011-2013
 Enhancing Undergraduate Chemistry Education through Incorporation of Art-based Experiments

Sigma Xi, Grants-in-Aid of Research, student support \$ 220 2005

(ii) External Grants, submitted but not funded

Funding agency	Amount	Period
NSF-AISL, <i>PI: Anne Gaquere</i> The STEAMing library CART: a Chemistry and Art to Reach Teens workshop, <i>co-PI: K. Shunn</i>	\$140,000	2015
NSF-CCLI, co-PI Vertical Integration of Laser-based Spectroscopy in the Undergraduate Curriculum	\$199,867	2011
NSF-MRI, co-PI Acquisition of a Hybrid Confocal Raman Microscope	\$360,000	2011
ACS PRF, PI Synthesis and spectroscopic analysis of new covalently linked porphyrin-pyrrolidinofullerene dyads	\$ 50,000	2010
NSF-CCLI, PI Chemistry laboratory experience based in the Arts: A true connection	\$193,943	2009
NSF-CCLI, co-PI Vertical Integration of Laser-based Spectroscopy in the Undergraduate Curriculum	\$177,143	2009
NSF-MRI, co-PI Acquisition of a Hybrid Confocal Raman/ Atomic Force Microscope	\$415,717	2009
ACS PRF, PI Synthesis and spectroscopic analysis of new covalently linked porphyrin-pyrrolidinofullerene dyads	\$ 50,000	2009
NSF-MRI, co-PI Acquisition of an ICP-MS	\$500,000	2008
NSF-MRI, co-PI Acquisition of a Scanning Electron Microscope	\$959,334	2006
ACS-PRF, PI	\$49,980	2005

A Mechanistic study of the sonophotodegradation of polychlorinated aromatic compounds
 ACS-PRF, PI \$49,920 2005
 Sonophotodegradation of polychlorinated aromatic compounds

ACS-PRF, PI \$49,400 2004
 Mechanism of degradation of polychlorinated aromatic compounds under ultrasounds

EPA, co-PI \$265,850 2004
 Sonoremediation of polychlorinated aromatic compounds

(iii) Internal Grants, funded

Program	Amount	Period
35. Student Research Assistant Program	\$1,500	2015
34. UWISE mini-grant (SI for eCore)	\$4,500	2014
33. UWISE mini-grant (prelab for organic)	\$4,500	2014
32. Student Research Assistant Program	\$2,000	2014
31. Student Research Assistant Program	\$2,000	2013
30. Student Research Assistant Program	\$2,000	2012
29. UWISE mini-grant	\$4,000	2011
28. Student Research Assistant Program	\$2,000	2011
27. Faculty Research Grant	\$2,000	2011
26. College Arts and Science Travel Scholarship	\$500	2010
25. Tech Fee Grant: XRF spectrometer (with Dr T. Foster)	\$50,000	2010
24. Tech Fee Grant: Handheld Raman spectrometer	\$23,000	2010
23. Faculty Research Grant	\$1,500	2010
22. SOFREA	\$2,000	2010
21. Student Research Assistant Program	\$2,100	2010
20. Faculty Research Grant	\$1,500	2009
19. Student Research Assistant Program	\$2,100	2009
18. Tech Fee Grant: UV VIS spectrophotometer	\$15,000	2009

17. Faculty Research Grant	\$1,500	2008
16. Student Research Assistant Program	\$2,100	2008
15. Faculty Research Grant	\$1,500	2007
14. Student Research Assistant Program	\$2,100	2007
13. Student Research Assistant Program	\$2,100	2007
12. Center of Teaching and Learning	\$750	2006
11. Faculty Research Grant	\$1,500	2006
10. Student Research Assistant Program	\$2,100	2006
9. Tech Fee Grant: FT-IR spectrophotometer	\$17,000	2006
8. START UP fund for lecturer line	\$4,000	2006
7. Faculty Research Grant	\$1,500	2005
6. Student Research Assistant Program	\$1,950	2005
5. Faculty Research Grant	\$1,491	2004
4. Tech Fee Grant: Personal Response System	\$2,300	2004
3. Student Research Assistant Program	\$1,950	2004
2. Faculty Research Grant	\$1,500	2003
1. Student Research Assistant Program	\$1,950	2003

(iv) Internal Grants, submitted but not funded

Grant	Amount	Period
6. Student Research Assistant Program	\$2,100	2008
5. Tech Fee Grant: UV VIS spectrophotometer	\$15,000	2008
4. Student Research Assistant Program	\$2,100	2007
3. Tech Fee Grant: UV VIS spectrophotometer	\$15,000	2007
2. Tech Fee Grant: Personal Response System	\$1,000	2005
1. Tech Fee Grant: Digitizers for students	\$800	2004

H. Contracts

- NSF-cCWCS workshop: organized and taught a 2-day chemistry workshop for US college faculty at Clark Atlanta University, March **2015**
- NSF-cCWCS workshop: organized and taught a 2-day chemistry workshop for US college faculty at Clark Atlanta University, March **2014**
- eCore: course guide: I am the faculty facilitator the online training course for newly hired eCore instructors, two sessions: February **2015** and March **2015**
- eCore mentor for new chemistry faculty, Fall **2014**
- Summer Bridge Program **2011**: taught a two-day chemistry course for entering science majors as part of the UWISE grant
- eCore: revise contents for CHEM 1211 and CHEM1212, **2011-present**
- eCore: teach an online section of CHEM 1211 or CHEM1212, **2011-present**
- Reviewer, General, Organic, and Biochemistry textbook, from Raymond, Wiley, **2010**
- Consultant: Chemical analysis of polymers samples, **2006**
- Development of a day-long tutorial for Southwire employees with Dr Farooq Khan and Dr Swamy Mruthinti, Summer **2006**
- Reviewer, Organic Chemistry textbook from Bruice, Prentice-Hall, **2004**
- Reviewer, Organic Chemistry textbook from Wade, Prentice-Hall, **2004**

I. Other Research Enhancement

3. NSF-GEMS Summer Research **2008**: supervised one student (Joseph Holmes)
2. NSF-GEMS Summer Research **2007**: supervised one student (Courtney Richardson)
1. NSF-GEMS Summer Research **2006**: supervised one student (Dennis Kinuthia)

J. Professional Development Workshops and Activities

- Attended Webinar, “Supplemental instruction: Improving student engagement, performance, and course completion”, hosted by Innovative Educators, March **2015**
- Attended Dr. T. Renick’s presentation on retention and graduation data at Georgia State University, UWG, March **2015**

- Attended an afternoon-long SoTL workshop, Summer **2014**
- Attended a semester-long SoTL workshop linked to a book study (“Teaching naked” by Jose Antonio Bowen, Spring **2014**
- Enrolled in Spring **2012** Art graduate course: ART 5985: Camille Claudel, letter grade A.
- Enrolled in Spring **2011** Art graduate course: ART 5985: Versailles, letter grade A.
- Enrolled in Spring **2011** Art graduate course: ART 5985: Medieval Manuscripts, letter grade A.
- Enrolled in Fall **2010** Art graduate course: ART 5985: Sculpture: History, letter grade A.
- Enrolled in Fall **2010** Art graduate course: ART 5985: History Interior Design, letter grade A.
- Enrolled in Summer **2010** Art graduate course: ART 5985: Hist Graphic Design, letter grade A.
- Attended a week-long NSF workshop, “Advanced Chemistry and Art” by Dr Patricia Hill, Summer **2010**
- Attended a Maymester workshop on grant writing by Dr John Storer, UWG campus, **2010**
- Attended an ACS Webinar by Samuel Toba, “How chemistry is keeping your food safe: Application of ultra-high pressure liquid chromatography in a food safety”, March **2010**
- Attended a Webinar from Jeanne Sewell, Georgia College and State University, “Test Creation Strategies for Online Students”, March **2009**
- Attended USG Study Abroad Workshop, April **2008**
- Attended a Webinar from FisherSci: “IR and Raman spectroscopy”, March **2007**
- Attended a Webinar from Kathy Harper: “Training and preparing TAs”, April **2007**
- Attended a workshop at SERMACS: “Curriculum Development for Environmental Chemistry” by Dr. John Ferry, Fall **2006**
- Attended a workshop at SERMACS: “An Introduction to Forensic Chemistry” by Dr. William Brewer, Fall **2006**
- Attended a week-long NSF workshop, “Chemistry and Art” by Dr Patricia Hill, Spring **2006**
- Attended a workshop at University of West Georgia: “Inquiry in Science Education”, by Dr Donald Wink, Spring **2005**
- Attended a POGIL-Workshop at Morehouse College, Spring **2004**

- Attended a week-long NSF workshop at Emory University: Case study in Sciences, Summer
2004