

**REPORT TO THE LOUISIANA BOARD OF REGENTS
REVIEW OF TRADITIONAL ENHANCEMENT PROPOSALS IN CHEMISTRY
FY 2016-17**

March 2017

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**BOARD OF REGENTS SUPPORT FUND
TRADITIONAL ENHANCEMENT COMPONENT, FY 2016-2017**

CHEMISTRY PROPOSALS

Introduction

A review panel consisting of Dr. Jason Locklin (Chair, University of Georgia), Dr. Todd Hudnall (Texas State University), and Dr. Maria Ngu-Schwemlein (Winston-Salem State University) met by virtual panel on Friday, March 3, 2017 to discuss 36 proposals submitted through the Traditional Enhancement Program component of the Board of Regents Support Fund in chemistry.

The panel received the following materials prior to the review: (a) thirty-six (36) complete proposals and the appropriate rating forms; (b) complete reviews and analysis by community college consultant Dr. Katherine Boswell, Education Policy Associates, of the three (3) proposals submitted by two-year institutions; (c) a summary of the proposals listing titles, PIs, submitting institutions, and funds requested; (d) the RFP containing the criteria for evaluation; and (e) a copy of the FY2013-14 Traditional Enhancement Chemistry final report. Each panelist was assigned twenty-four (24) proposals for review by the panel chair. These proposals were then reviewed by the panelists. Each proposal received a thorough and impartial review.

A total of \$3,436,689 in first-year funds were requested by all proposals. The panel ranked all proposals, and highly recommended funding for ten (10) proposals with first-year awards totaling \$939,982.

This report contains two tables. Table I contains a rank-order list of the proposals deemed highly recommended for funding, with the recommended funding level for each proposal. Table II lists proposals in rank order that were not recommended for funding. The detailed reviews of each proposal follow immediately after the tables. A summary of all proposals submitted (Appendix A) and a copy of the rating forms used in the evaluations (Appendix B) are attached at the end of the report.

TABLE I
PROPOSALS HIGHLY RECOMMENDED FOR FUNDING

Rank	Rating	Proposal Number	Institution	First Year Funds Requested	First Year Funds Recommended	Second Year Funds Requested	Second Year Funds Recommended
1	96	03CHE-17	CEN	\$39,183	\$39,183		
2	95	15CHE-17	Loyola	\$124,491	\$124,491		
3	94	26CHE-17	Tulane	\$104,914	\$104,914		
4	93	09CHE-17	LSUAM	\$155,000	\$155,000		
5	91	23CHE-17	SLU	\$135,678	\$87,071		
6	90.5	07CHE-17	LSUAM	\$204,951	\$204,951		
7	90	14CHE-17	LaTech	\$85,220	\$85,220		
8	89	28CHE-17	ULL	\$60,175	\$60,175		
9	88.5	30CHE-17	ULL	\$11,255	\$11,255		
10	88	36CHE-17	Xavier	\$131,805	\$67,722		
TOTALS:				\$1,052,672	\$939,982	\$0	\$0

TABLE II
PROPOSALS NOT RECOMMENDED FOR FUNDING

Rank	Rating	Proposal Number	Institution	First Year Funds Requested	First Year Funds Recommended	Second Year Funds Requested	Second Year Funds Recommended
11	87.5	06CHE-17	LSUAM	\$79,900	\$0		
11	87.5	08CHE-17	LSUAM	\$134,691	\$0		
11	87.5	34CHE-17	ULM	\$92,844	\$0		
14	87	20CHE-17	NSU	\$108,176	\$0		
14	87	21CHE-17	NSU	\$64,689	\$0		
16	86	31CHE-17	ULL	\$98,803	\$0		
17	85	11CHE-17	LSUA	\$130,048	\$0		
18	84	02CHE-17	BRCC	\$27,137	\$0		
19	83	32CHE-17	ULL	\$44,831	\$0		
19	83	35CHE-17	UNO	\$25,000	\$0		
21	82	17CHE-17	Nicholls	\$99,356	\$0		
21	82	29CHE-17	ULL	\$76,120	\$0		
23	80	24CHE-17	SUNO	\$63,655	\$0		
24	79	10CHE-17	LSUAM	\$125,210	\$0	\$0	\$0
24	79	33CHE-17	ULL	\$31,510	\$0		
26	72.5	19CHE-17	NSU	\$98,300	\$0		
27	71	13CHE-17	LSUS	\$125,000	\$0	\$0	\$0
28	70	18CHE-17	NSU	\$22,167	\$0		
29	67	22CHE-17	Nunez	\$280,844	\$0		
30	62	25CHE-17	Tulane	\$200,000	\$0		
31	58	01CHE-17	BRCC	\$59,556	\$0		
31	58	27CHE-17	UHC	\$100,515	\$0		
33	42	16CHE-17	Nicholls	\$129,402	\$0		
34	39	05CHE-17	LSUAM	\$30,000	\$0	\$0	\$0
34	39	12CHE-17	LSUS	\$0	\$0		
36	38	04CHE-17	LSUAG	\$136,263	\$0		
TOTALS:				\$2,384,017	\$0	\$0	\$0

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 01CHE-17

INSTITUTION: Baton Rouge Community College

TITLE OF PROPOSAL: The Enhancement of NMR Capabilities in the Sciences for
Teaching and Research at Baton Rouge Community College

PRINCIPAL INVESTIGATOR: Dewayne Logan

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 6 (of 10 points)
B.2 8 (of 21 points)
B.3 4 (of 5 points)
B.4 2 (of 5 points)
B.5 3 (of 5 points)
B.6 3 (of 5 points)
B.7 0 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

58

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount: <u>\$59,556</u> Recommended Amount: <u>\$0</u>
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COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The requested benchtop NMR will undoubtedly make an great impact on both the research and teaching infrastructure at BRCC. The proposal does not cite what experiments would be added to appropriate courses utilizing the instrument. It does not include any measurable objectives or evaluation strategies to reflect to what degree the project achieved its goals. This makes the impact of the project on the curriculum less clear. The primary focus of the proposal is on enhancing faculty research capacity rather than supporting the teaching and learning needs of lower-division chemistry students at a two-year community college. A functioning NMR is important for both education and research activities. However this proposal does not adequately make that connection to justify the acquisition. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 02CHE-17

INSTITUTION: Baton Rouge Community College

TITLE OF PROPOSAL: Enhancing Laboratory Instruction and Research in Chemistry
through the Acquisition of a Fluorescence Spectrophotometer

PRINCIPAL INVESTIGATOR: Divina Miranda

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 18 (of 21 points)
B.3 4 (of 5 points)
B.4 4 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No x

G. Total Score:

84

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$27,137</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks a fluorescence spectrophotometer to enhance laboratory instruction and promote undergraduate research. Many aspects of it are well written. This equipment will complement existing instrumentation and will have an impact on curricular and faculty development. Specific experiments are outlined for implementation in some courses. The goals and objectives are also clearly presented with measureable outcomes. However, the proposal lacks details on how its curricular enhancement and undergraduate research could better prepare students for four-year programs or the workforce. It is commendable for the PI to participate in research for professional development. However this aspect of the proposal could be better developed to focus on student-centered research projects to enhance student success. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 03CHE-17

INSTITUTION: Centenary College

TITLE OF PROPOSAL: Sustaining and Enhancing a 21st Century Chemistry Curriculum
through Computational Tools

PRINCIPAL INVESTIGATOR: Thomas Ticich

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 10 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7 (of 10 points)
B.2 20 (of 21 points)
B.3 5 (of 5 points)
B.4 5 (of 5 points)
B.5 5 (of 5 points)
B.6 5 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

96

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$39,183</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$39,183</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal requests funds to enhance the Chemistry curriculum by upgrading a computer classroom. The rationale and objectives are clearly presented and are measurable. The work plan provides details of curricular activities, including proposed experiments, which will impact a significant number of courses. This is a well-written proposal and there is a good track record of previous funded curricular improvement projects in the department. The proposed upgrades to the outdated computers and software are reasonable and essential. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 04CHE-17

INSTITUTION: Louisiana State University Agricultural Center

TITLE OF PROPOSAL: Reverse Osmosis, Micro, Ultra and Nano Filtration Equipment for
Teaching and Research of Concentration and Fractionation of
Targeted Chemical Components in Fluid Foods

PRINCIPAL INVESTIGATOR: Kayanush Aryana

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 2.5 (of 5 points)
A.3 2.5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
C.2 1 (of 1 point)
C.3 1.5 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 2.5 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 4.5 (of 10 points)
B.2 8 (of 21 points)
B.3 1.5 (of 5 points)
B.4 1.5 (of 5 points)
B.5 1.5 (of 5 points)
B.6 1 (of 5 points)
B.7 1 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

38

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$136,263</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The School of Animal Sciences seeks to acquire filtration equipment that will enhance teaching and research pertaining to the fractionation of a range of chemical components from fluid foods. The objective of this project is to train graduate and undergraduate students in microfiltration and ultrafiltration techniques of fluid dairy products. This proposal lacks details on how the equipment could benefit research and curricular activities in the Chemistry discipline. This version of the proposal is better suited for the Agricultural Sciences discipline of the Traditional Enhancement Program. Funding is not recommended.

RATING FORM FOR ENHANCEMENT REQUESTS OTHER THAN EQUIPMENT PURCHASES

PROPOSAL NUMBER: 05CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Expanding the LSU CAMD Synchrotron User Community

PRINCIPAL INVESTIGATOR: Leslie Butler

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
A.2 1.5 (of 5 points)
A.3 1.5 (of 5 points)

C. Faculty and Staff Expertise

(Total of 12 Points)

C.1 12 (of 12 points)

D. Economic and/or Cultural Development and Impact

(Total of 12 Points)

D.1 2 (of 2 points)
D.2a 1.5 (For S/E)
or (of 10 points)
D.2b (For NS/NE)

B. The Enhancement Plan

(Total of 66 Points)

B.1 3 (of 10 points)
B.2 7.5 (of 20 points)
B.3 2.5 (of 8 points)
B.4 1.5 (of 8 points)
B.5 1.5 (of 8 points)
B.6 1.5 (of 8 points)
B.7 3 (of 4 points)

E. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No

F. Total Score:

39

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	YEAR 1	YEAR 2
		<u>\$30,000</u>	<u>\$0</u>
	Recommended Amount:	<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks travel costs for new faculty and students to perform experiments at national synchrotron facilities. Though this project has the potential to help faculty and students, it is poorly constructed. The opening sections are very brief and simply refer to other sections rather than describing the current situation. A portion of the proposal guidelines in the proposal were inadvertently left in the text at the beginning of section 2. There are also several typos throughout, and the proposal lacks polish in its writing and ideas. The project goals and objectives are very brief, and a weakness of the proposal with poorly delineated measurables and assessments. It is not clear why the PI is leading the proposal rather than serving as a co-PI, since the PI's work is not enhanced by this proposal. The work plan is too brief and filled with asides and discussions regarding prior success of the PI, followed by statements that the PI will not benefit from the proposal. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 06CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Enhanced Probe Capabilities for 500 MHz NMR Spectrometer

PRINCIPAL INVESTIGATOR: Rendy Kartika

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>4.5</u>	(of 5 points)	
A.3		<u>4.5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>6</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>9</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>8</u>	(of 10 points)
B.2	<u>15.5</u>	(of 21 points)
B.3	<u>4.5</u>	(of 5 points)
B.4	<u>5</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>4.5</u>	(of 5 points)
B.7	<u>5</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>11</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

87.5

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$79,900</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks a TBI probe for the NMR lab. Though the work plan is well written and would likely achieve the presented goals, the benchmarks that the PI hopes to accomplish are not clearly laid out in detail, especially with regard to the truncated timetable they will be facing post installation. Acquisition and installation will dispose of approximately 80% of the first year, leaving little time to achieve and assess the measurable objectives. The impact on research and education is clearly defined. The instrument enhances the lab's capabilities but will ultimately serve as a back-up probe for a unit that is only three years old. It is a quality proposal but ultimately less compelling with limited funds available. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 07CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Shared Facilities for Materials Research: Upgrade of the
Small-Angle X-Ray Scattering Beamline at LSU CAMD

PRINCIPAL INVESTIGATOR: Evgueni Nesterov

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 6 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 8.5 (of 10 points)
B.2 20 (of 21 points)
B.3 5 (of 5 points)
B.4 5 (of 5 points)
B.5 4 (of 5 points)
B.6 5 (of 5 points)
B.7 3 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score: 90.5 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY Requested Amount: \$204,951
RECOMMENDATIONS: Recommended Amount: \$204,951

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

CAMD seeks to upgrade the Small-Angle X-ray Scattering (SAXS) beamline to enable training in state-of-the-art material characterization techniques. The goals and objectives are well rationalized and will increase the eminence of CAMD by enhancing research capabilities. The upgrade will benefit many research groups in Louisiana, as well as improve interdisciplinary collaborations and competitiveness for federal funding. This project is considered a key component of research and teaching facilities by numerous units and is a priority for CAMD as endorsed by various letters of commitment. The evaluation plan could be more specific. The timeline for implementation of the proposed activities is acceptable, but there is no mention of any specific benchmarks that will be used for assessment. A significant institutional match is committed. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 08CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Accurate Mass ESI TOF Mass Spectrometer

PRINCIPAL INVESTIGATOR: Justin Ragains

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>4</u>	(of 5 points)	
A.3		<u>5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>5</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>9</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>9</u>	(of 10 points)
B.2	<u>18</u>	(of 21 points)
B.3	<u>4</u>	(of 5 points)
B.4	<u>4.5</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>4</u>	(of 5 points)
B.7	<u>3</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>12</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u> </u>	No	<u>x</u>
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G. Total Score:

87.5

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$134,691</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This is a well-written proposal that provides a strong justification for acquiring a refurbished Accurate Mass ESI-TOF mass spectrometer to replace an aging workhorse, an Agilent ESI-MS. The PI makes a significant case for the need of this instrument, which would benefit most of the Chemistry faculty research groups, and also improve student training. Specific research projects that will be enhanced are described in substantial detail. However, the PI did not articulate how curricular enrichment activities could be implemented to take advantage of the requested equipment. The evaluation plan could be strengthened by including some quantitative measures. Though compelling, with limited resources available, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 09CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Enhancement of the LSU Chemistry X-ray Facility

PRINCIPAL INVESTIGATOR: George Stanley

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>5</u>	(of 5 points)	
A.3		<u>5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>5</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>9</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>10</u>	(of 10 points)
B.2	<u>19</u>	(of 21 points)
B.3	<u>5</u>	(of 5 points)
B.4	<u>4</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>5</u>	(of 5 points)
B.7	<u>4</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>12</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

93

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$155,000</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$155,000</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to enhance the capabilities of the LSU Chemistry X-ray facility by relocating a previous BoRSF-funded diffractometer from UNO to LSU. The instrument will then be repaired and upgraded to current state-of-the-art levels and replace an unserviceable 18-year old diffractometer. This project will address a significant research need for both LSU and UNO and impact a large number of courses. The LSU X-ray facility has an outstanding service track record and this project is essential to accomodate increasing usages. Expert staff support is in place. It is laudable that the two universities have found a creative and efficient way to enhance the research infrastructure for both parties. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 10CHE-17

INSTITUTION: Louisiana State University and A & M College

TITLE OF PROPOSAL: Enhancement of the LSU Electron Paramagnetic Resonance Spectroscopy Facility: Low Temperature Stability and Helium Conservation

PRINCIPAL INVESTIGATOR: David Vinyard

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 2.5 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 2.5 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 6 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9.5 (of 10 points)
B.2 17 (of 21 points)
B.3 3 (of 5 points)
B.4 3 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9.5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score: 79 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

		YEAR 1	YEAR 2
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$125,210</u>	<u>\$0</u>
	Recommended Amount:	<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The Department of Chemistry seeks a cryogen-free cryostat system that can be integrated into existing electron paramagnetic resonance (EPR) instrumentation. The work plan describes three clearly measurable objectives that can be completed within the timeframe of two years. The work plan was well written, and all the activities and attendant parties to carry out said activities were adequately described. While the proposed equipment will no doubt enhance undergraduate research capabilities, there is minimal impact on the undergraduate or graduate curriculum. Details are not provided on maintenance. Will the institution provide the money for long-term upkeep, or will user fees support this? The description of economic impact is weak. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 11CHE-17

INSTITUTION: Louisiana State University at Alexandria

TITLE OF PROPOSAL: Enhancing the Chemistry Curriculum at LSUA through the
Acquisition of Gas Chromatography-Mass Spectrometer [GC-MS]
and Atomic Absorption Spectrometer [AAS] Equipment

PRINCIPAL INVESTIGATOR: Gerard Dumancas

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4.5 (of 5 points)
A.3 4.5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5.5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 8.5 (of 10 points)
B.2 18.5 (of 21 points)
B.3 3 (of 5 points)
B.4 5 (of 5 points)
B.5 4.5 (of 5 points)
B.6 4 (of 5 points)
B.7 3.5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9.5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

85

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$130,048</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The proposal seeks the acquisition of GC-MS and AA instruments to enhance the Chemistry curriculum and research opportunities. The justification is strong. The equipment would enhance development of the approved BS program in Chemistry through the introduction of an Instrumental Analysis Lab. The work plan is solid with a clear timeline of events, and appropriate faculty to execute them. Experiments to be included into the various labs are not described. The relationship to an analysis company started by the PI is not clearly described. With limited resources available, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 12CHE-17

INSTITUTION: Louisiana State University in Shreveport

TITLE OF PROPOSAL: Enhancement of Research Infrastructure for Drug Discovery
Projects at LSUS

PRINCIPAL INVESTIGATOR: Elahe Mahdavian

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 2 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 2 (of 6 points)
C.2 0 (of 1 point)
C.3 1 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 0 (of 2 points)
E.2a 3 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 6 (of 10 points)
B.2 4 (of 21 points)
B.3 2 (of 5 points)
B.4 1 (of 5 points)
B.5 3 (of 5 points)
B.6 1 (of 5 points)
B.7 1 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No x

G. Total Score:

39

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY Requested Amount: \$0
RECOMMENDATIONS: Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire state-of-the-art equipment to allow the principal investigators and students to connect current research endeavors to a larger enhanced Biochemistry Core. The goals, objectives and work plan are too broadly defined, as is the extensive range of equipment and instrument requested. The described programmatic enhancement could benefit from a well-defined instrument request and significant support from the institution for the complementary small equipment requested. Letters of support/commitment from relevant academic units showing how the core facility could be incorporated into their programs would ensure commitments for efficient use of the requested equipment. The budget request appears to be out of proportion to the available funds. Major revisions of this proposal would be necessary for the project to be competitive for funding. The PIs do not specifically describe what equipment will be purchased, and therefore it is difficult to determine how the equipment will impact the department and curriculum, or enhance existing resources. There was discussion relating to -80 degree Celsius freezers and biosafety cabinets, but it is unclear what other equipment is to be purchased. Though the total request appears to be in the area of \$300,000, no budget was attached to the proposal as submitted, and no funds were officially requested. Therefore no funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 13CHE-17

INSTITUTION: Louisiana State University in Shreveport

TITLE OF PROPOSAL: AFM for Chemistry and Nanoscience Education and Research

PRINCIPAL INVESTIGATOR: William Yu

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 7 (For S/E)
 or (of 10 points)
 E.2b (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7 (of 10 points)
 B.2 17 (of 21 points)
 B.3 2 (of 5 points)
 B.4 3 (of 5 points)
 B.5 3 (of 5 points)
 B.6 3 (of 5 points)
 B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No

G. Total Score: 71 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

		YEAR 1	YEAR 2
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$125,000</u>	<u>\$0</u>
	Recommended Amount:	<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire an atomic force microscope (AFM) for chemistry and nanoscience education and research. The rationale for the proposed enhancement lacks some details. An AFM would allow higher resolution and broaden the types of samples that can be analyzed, but it is not clear why existing instrumentation, such as the TEM and SEM, could not be used for curricular activities. It is not clear if there is a new institutional focus on chemistry and nanoscience that justifies a suite of microscopy tools. It is uncertain how many students will benefit from the project in terms of the mission of the chemistry program. The work plan is vague. Another issue is that the planned incorporation of experiments into the undergraduate curriculum seems very difficult. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 14CHE-17

INSTITUTION: Louisiana Tech University

TITLE OF PROPOSAL: Incorporation of Modern Chemical Separation Techniques
[GC/HPLC] into LA Tech Integrated Chemistry/Environmental
Science Labs

PRINCIPAL INVESTIGATOR: Upali Siriwardane

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 8 (of 10 points)
B.2 20 (of 21 points)
B.3 5 (of 5 points)
B.4 5 (of 5 points)
B.5 4 (of 5 points)
B.6 5 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No

G. Total Score:

90

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$85,220</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$85,220</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal requests new analytical instrumentation (GC/HPLC) to enhance the chemical separations and analytical capabilities of the integrated chemistry/environmental sciences laboratory. The department is well equipped with regard to many different areas in chemistry, but lacking with regard to separations. The goals and objectives have clear measurables that can be appropriately assessed, and the work plan is clearly delineated with a solid timeline. A long list of demonstrations and experiments are planned for both pieces of equipment to implement immediately once the equipment is installed. The institutional match is strong. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 15CHE-17

INSTITUTION: Loyola University New Orleans

TITLE OF PROPOSAL: Characterization of Powdered Samples for Teaching and Research

PRINCIPAL INVESTIGATOR: Lynn Kopplitz

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>5</u>	(of 5 points)	
A.3		<u>5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>6</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>10</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>10</u>	(of 10 points)
B.2	<u>18</u>	(of 21 points)
B.3	<u>5</u>	(of 5 points)
B.4	<u>5</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>4</u>	(of 5 points)
B.7	<u>5</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>12</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

95

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$124,491</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$124,491</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a powder e-ray diffraction instrument and attendant diffuse reflectance accessory to enhance instruction. It will make a sizeable impact on the existing resources and student training. The instrument is an invaluable tool in both education (particularly in terms of macromolecular/materials characterization, an ACS requirement) and research. The goals and objectives of the work plan are clearly described and are easily assessable. The work plan is excellent, with clearly described activities and benchmarks described with appropriate timelines. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 16CHE-17

INSTITUTION: Nicholls State University

TITLE OF PROPOSAL: Acquisition of Liquid Chromatograph-Mass Spectrometer [LC-MS]
to Enhance Environmental Chemistry Curriculum at Nicholls State
University

PRINCIPAL INVESTIGATOR: Raj Boopathy

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>2</u>	(of 5 points)	
A.3		<u>2</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>3</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>1.5</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>1</u>	(of 2 points)
E.2a	<u>5</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>4.5</u>	(of 10 points)
B.2	<u>8</u>	(of 21 points)
B.3	<u>2.5</u>	(of 5 points)
B.4	<u>1.5</u>	(of 5 points)
B.5	<u>1.5</u>	(of 5 points)
B.6	<u>1.5</u>	(of 5 points)
B.7	<u>2</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>5</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

42

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY RECOMMENDATIONS:

Requested Amount:

\$129,402

Recommended Amount:

\$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a modern LC-MS with BOD and oxygen analyzers to replace dated instruments that are used by a number of labs for the Environmental Science program. This instrumentation will additionally augment research activities which are deeply entwined with environmental, industrial, and cultural issues that are unique to the region. The objectives and timeline are clear. However, the work plan would be stronger if specific details were provided regarding what lab experiments would be enhanced or what research projects would utilize the equipment. The university has provided a modest match for upkeep, and the PI proposes to obtain additional maintenance funds through grants. Only Biology courses in the Environmental Biology Concentration are listed for curricular enhancement. The PI could have collaborated with Chemistry faculty to impact the enhancement of this eligible discipline. The Biological Sciences or Earth and Environmental Sciences competitions are more appropriate competitions for this proposal. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 17CHE-17

INSTITUTION: Nicholls State University

TITLE OF PROPOSAL: Enhancing Undergraduate Biological Molecular Structure and
Dynamics Education and Research with Acquisition of a Inverse
NMR probe and a Luminescence Spectrophotometer

PRINCIPAL INVESTIGATOR: Matthew Marlow

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4.5 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5.5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1.5 (of 2 points)
E.2a 9.5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7 (of 10 points)
B.2 17 (of 21 points)
B.3 3.5 (of 5 points)
B.4 4 (of 5 points)
B.5 4.5 (of 5 points)
B.6 4 (of 5 points)
B.7 3.5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9.5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

82

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$99,356</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a new, more sensitive NMR probe, and a new fluorimeter, both for the purpose of enhancing educational and research activities in Nicholls' new Biochemistry concentration. These instruments would clearly be beneficial, and the modest institutional match is a plus. The work plan does not clearly delineate how the large numbers of students in biochemistry and organic chemistry will be able to access the NMR for instructional and research experiments that will take several hours or even days. The objectives were not entirely tied to the goals. It is not necessary to actually have the capability of running NMR on large molecules to teach NMR theory (in particular 2D NMR), nor is a fluorimeter necessary to teach luminescence. It is not clearly established what the shortcomings of the existing fluorimeter are for the proposed instructional lab experiments. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 18CHE-17

INSTITUTION: Northwestern State University

TITLE OF PROPOSAL: Enriching Chemistry Undergraduate Courses with Fluorescence Spectrophotometer

PRINCIPAL INVESTIGATOR: Shreyashi Ganguly

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 8 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 6 (of 10 points)
B.2 14 (of 21 points)
B.3 4 (of 5 points)
B.4 4 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 3 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No x

G. Total Score:

70

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$22,167</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to install a fluorescence spectrophotometer in the general chemistry laboratories that would strengthen the current state-of-the-art instrumentation facilities. The rationale for this equipment request is solid and the goals and objectives are clearly defined and appear to be measurable. However, the work plan lacks essential information. It is not clear what experiments will be conducted or how the curriculum would be impacted. Some proposal sections were not adequately addressed. The evaluation component is vague. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 19CHE-17

INSTITUTION: Northwestern State University

TITLE OF PROPOSAL: Enhancement of Undergraduate Scholarship in Chemistry through
Nuclear Magnetic Resonance Spectroscopy

PRINCIPAL INVESTIGATOR: Jennifer Hill

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4 (of 5 points)
A.3 4.5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1.5 (of 2 points)
E.2a 8.5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7.5 (of 10 points)
B.2 13.5 (of 21 points)
B.3 4 (of 5 points)
B.4 2 (of 5 points)
B.5 2 (of 5 points)
B.6 2.5 (of 5 points)
B.7 4.5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No x

G. Total Score:

72.5

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$98,300</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a top-performing desk-top NMR instrument to meet the goal of a newly approved BS Environmental Chemistry program. The rationale is well defined and the objectives are clear and measurable. However, essential details are lacking. The timeline is not realistic. It is not clear what the broader impacts of this instrument are beyond the Organic Chemistry I lab. The work plan does not clearly state which experiments will utilize the NMR or how the instrument will augment research activities. The potential for forging collaborations with other units is not explored. A case could be made regarding the current 40 MHz NMR instrument and the selection of a 60 MHz versus an 80 MHz table-top version. This proposal could be strengthened substantially by addressing the technical aspects of the proposal criteria. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 20CHE-17

INSTITUTION: Northwestern State University

TITLE OF PROPOSAL: Establishment of a Chromatography Suite for Monitoring Chemical 'Fates' and Determining Chemical Structure in Science Laboratories

PRINCIPAL INVESTIGATOR: Christopher Lyles

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>5</u>	(of 5 points)	
A.3		<u>5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>6</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>10</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>8</u>	(of 10 points)
B.2	<u>16</u>	(of 21 points)
B.3	<u>5</u>	(of 5 points)
B.4	<u>3</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>5</u>	(of 5 points)
B.7	<u>3</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>11</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u> </u>	No	<u>x</u>
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G. Total Score: 87 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$108,176</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The School of Biological and Physical Sciences seeks to acquire a suite of chromatography instruments (Agilent 5977B GC/MS with a 7820 GC and an autosampler, Agilent G3581A 490 Micro GC, Metrohm 883 Basic IC plus) for the core research facility. They will be used to enhance instructional lab courses in both Chemistry and Biology, faculty research with undergraduates, and the Louisiana School for Math, Science and the Arts. The goals are straightforward and the objectives are measurable. The equipment would substantially benefit the newly approved BS in Environmental Chemistry program. Details are lacking for how the instrumentation will be implemented in the curricula. Examples of new chemistry laboratory activities are not presented. The work plan and evaluation plan lack details. With limited resources, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 21CHE-17

INSTITUTION: Northwestern State University

TITLE OF PROPOSAL: Microwave Plasma Atomic Emission Spectrometer for
Enhancement of the Physical Science Program

PRINCIPAL INVESTIGATOR: Chad Thibodeaux

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 10 (of 10 points)
B.2 17 (of 21 points)
B.3 4 (of 5 points)
B.4 5 (of 5 points)
B.5 5 (of 5 points)
B.6 4 (of 5 points)
B.7 2 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No x

G. Total Score:

87

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY Requested Amount: \$64,689
RECOMMENDATIONS: Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks funding to obtain an Agilent 4200 MP-AES atomic spectroscopy instrument to enhance instructional and research capabilities. The rationale for the request is compelling. The administrative commitment to grow the Chemistry program is clearly established. The equipment would have immediate impact on a department that currently has limited capabilities in this area. The selection process for the equipment was thoughtful and efficient. However, technical details are lacking for assessing expected project outcomes. Though compelling, with limited resources available, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 22CHE-17

INSTITUTION: Nunez Community College

TITLE OF PROPOSAL: Revitalizing Chemistry

PRINCIPAL INVESTIGATOR: Stephen Waddell

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>4</u>	(of 5 points)	
A.3		<u>4</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>4</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>2</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>1</u>	(of 2 points)
E.2a	<u>5</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>6</u>	(of 10 points)
B.2	<u>14</u>	(of 21 points)
B.3	<u>4</u>	(of 5 points)
B.4	<u>4</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>4</u>	(of 5 points)
B.7	<u>2</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>8</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

67

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$280,844</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to initiate improvements in Chemistry course offerings to enhance recruitment and retention. Nunez has already accomplished a commendable amount of recovery given the total devastation that the college experienced during Hurricane Katrina. Although there is still a significant need for science lab spaces and equipment, this proposal is too ambitious and the budget request is out of proportion to the available funds. It also lacks details on how the equipment (FTIR and two HPLC systems) could be used to enrich the Chemistry curriculum for enhanced student training and success. Moreover, the evaluation plan lacks details on expected programmatic and educational impacts. This proposal could be strengthened by narrowing the scope. It would also be helpful to link the curricular needs to unmet needs for skilled workers in the local economy. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 23CHE-17

INSTITUTION: Southeastern Louisiana University

TITLE OF PROPOSAL: Modernization of Separation Sciences and Atomic Spectroscopy
Instrumentation for Enhancement of Education and Undergraduate
Research at Southeastern Louisiana University

PRINCIPAL INVESTIGATOR: Phillip Voegel

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 10 (For S/E)
or (of 10 points)
E.2b (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 19 (of 21 points)
B.3 4 (of 5 points)
B.4 4 (of 5 points)
B.5 4.5 (of 5 points)
B.6 3.5 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No

G. Total Score:

91

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$135,678</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$87,071</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire three pieces of equipment: a microwave plasma atomic emission spectrometer, HPLC, and Capillary Electrophoresis system. In the case of the capillary electrophoresis (CE) system, this will be a new addition to the suite of instruments available. These pieces will not only enhance undergraduate instruction and research opportunities, but will also help the department maintain ACS accreditation. The goals and objectives are strong, very detailed, and clearly measurable. In addition, the work plan was very well executed, with clear duties and attendant timelines described. The implementation of the project into the existing curriculum is clearly described. While this request is ambitious in scope, the replacement of the two oldest instruments would save the department a large sum of money currently used for upkeep. Because of limited funds available, partial funding of \$87,071 is recommended for the spectrometer and HPLC. The institutional match may be reduced proportionately.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 24CHE-17

INSTITUTION: Southern University at New Orleans

TITLE OF PROPOSAL: Request for Fourier Transform-Infrared Spectrometry [FT-IR] to
Enhance the Programs in the Department of Natural Sciences

PRINCIPAL INVESTIGATOR: Nebiat Sisay

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3.5 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 2.5 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 7 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 8.5 (of 10 points)
B.2 17 (of 21 points)
B.3 4 (of 5 points)
B.4 4 (of 5 points)
B.5 3.5 (of 5 points)
B.6 4 (of 5 points)
B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

80

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY Requested Amount: \$63,655
RECOMMENDATIONS: Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a Mid-IR FTIR instrument with accessories for metered gas cells and a nitrogen generator to enhance curricula, student learning, and faculty pedagogy. While the goals and objectives are measurable, the work plan lacks essential information. It is not clear what experiments the new equipment could handle that the existing equipment cannot. The PI could highlight such measurements and research project activities and relate them to the type of equipment requested. The evaluation plan would benefit from this information as well. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 25CHE-17

INSTITUTION: Tulane University

TITLE OF PROPOSAL: Enhancement of the Tulane X-ray Crystallography Laboratory

PRINCIPAL INVESTIGATOR: Joel Mague

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>3</u>	(of 5 points)	
A.3		<u>4.5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>3.5</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>5.5</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>6</u>	(of 10 points)
B.2	<u>2</u>	(of 21 points)
B.3	<u>5</u>	(of 5 points)
B.4	<u>4.5</u>	(of 5 points)
B.5	<u>4</u>	(of 5 points)
B.6	<u>3</u>	(of 5 points)
B.7	<u>3</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>12</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

62

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$200,000</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to enhance Tulane's X-ray crystallography facility. No clear justification for funding is presented. It lacks clearly defined goals and measurable, obtainable objectives. The work plan does not describe any activities or attendant timelines to ensure that the goals are met. The proposal sections are not addressed in the order stipulated by the RFP, which made it confusing to read. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 26CHE-17

INSTITUTION: Tulane University

TITLE OF PROPOSAL: Enhancing Spectroscopic Measurements at Interfaces

PRINCIPAL INVESTIGATOR: Igor Rubtsov

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>5</u>	(of 5 points)	
A.3		<u>5</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>6</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>9</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>9</u>	(of 10 points)
B.2	<u>20</u>	(of 21 points)
B.3	<u>5</u>	(of 5 points)
B.4	<u>4</u>	(of 5 points)
B.5	<u>5</u>	(of 5 points)
B.6	<u>5</u>	(of 5 points)
B.7	<u>4</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>11</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u>x</u>	No	<u> </u>
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G. Total Score:

94

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$104,914</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$104,914</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The Tulane Laser Laboratory seeks to enhance the performance capabilities of two spectroscopy instruments. The upgrades will significantly enhance research for faculty and at the graduate and undergraduate levels. The team has established a very progressive laboratory with a focus on time-resolved spectroscopy. This proposal is significant for initiating various pertinent partnerships to secure funding from external agencies. Additionally, it will have a broad impact on students and faculty research in Louisiana. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 27CHE-17

INSTITUTION: University of Holy Cross

TITLE OF PROPOSAL: Chemistry Education and Outreach Infrastructure Project

PRINCIPAL INVESTIGATOR: Darryl Holliday

A. The Current Situation

(Total of 10 Points)

A.1	Yes	<u>x</u>	No	<u> </u>
A.2		<u>1.5</u>	(of 5 points)	
A.3		<u>3</u>	(of 5 points)	

C. Equipment

(Total of 10 Points)

C.1	<u>4</u>	(of 6 points)
C.2	<u>1</u>	(of 1 point)
C.3	<u>3</u>	(of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1	<u>2</u>	(of 2 points)
E.2a	<u>8</u>	(For S/E)
or		(of 10 points)
E.2b	<u> </u>	(For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1	<u>6</u>	(of 10 points)
B.2	<u>10</u>	(of 21 points)
B.3	<u>3</u>	(of 5 points)
B.4	<u>2.5</u>	(of 5 points)
B.5	<u>3</u>	(of 5 points)
B.6	<u>2</u>	(of 5 points)
B.7	<u>3</u>	(of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1	<u>6</u>	(of 12 points)
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F. Previous Support Fund Awards

(No Points Assigned)

G.1	Yes	<u> </u>	No	<u>x</u>
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G. Total Score: 58 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$100,515</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks funds to acquire industry-specific chemistry equipment for enhancing student training that assists industries with chemical analysis services. The proposal's description of the project primarily consists of background information that is too broad and is not pertinent to the criteria for assessing projects proposing purchase of instructional and research equipment. Therefore, the relevance and significance of this proposal is difficult to evaluate. It lacks essential information to establish a correlation between the enhancement activities and the type of equipment requested. The work plan lacks clarity and is ambitious for a one-year project. If the students conduct chemical analysis for local industry, significant time and effort would be needed to establish standard procedures to meet industry standards. This proposal could be strengthened by narrowing the scope of the project to articulate how the requested equipment will be effectively used to enhance curricular activities and student training. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 28CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Acquisition of a Bench Top NMR Spectrometer for Integration into the Chemistry Curriculum

PRINCIPAL INVESTIGATOR: August Gallo

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5.5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 17 (of 21 points)
B.3 4 (of 5 points)
B.4 5 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 4.5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

89

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$60,175</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$60,175</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal requests a bench-top NMR spectrometer for education and research. The equipment would augment instrumentation previously supported by the BoRSF. The objectives are clearly stated and measurable with appropriate assessment described, and the work plan is well described. The equipment will greatly enhance the ability of faculty to incorporate instrumentation into the undergraduate curricula. It is unclear how it could be effectively located for the proposed use across multiple instructional laboratories. The work plan could provide more details on experiment protocols. It is not clear how the existing 400 MHz NMR spectrometer will be used to complement the benchtop model. The requested piece is cost-efficient. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 29CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Introduction of UL Lafayette's Chemistry Program to Microwave Assisted Techniques

PRINCIPAL INVESTIGATOR: Thomas Junk

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3.5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 8.5 (of 10 points)
B.2 17.5 (of 21 points)
B.3 3 (of 5 points)
B.4 4 (of 5 points)
B.5 3.5 (of 5 points)
B.6 3 (of 5 points)
B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

82

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$76,120</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire two laboratory microwave systems to support Chemistry teaching laboratories with modern microwave-irradiated processes, which would also reduce chemical waste generation in instructional labs. While the rationale and work plan are well defined, the request for a second unit for limited instructional use is insufficiently justified. The incorporation of microwave technology into the organic chemistry labs is well conceived and reflects current trends. Some additional details on how it could be used to enhance teaching pedagogy, such as guided inquiry learning and incorporation of green chemistry principles, would improve the proposal. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 30CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Expanding the Application of Computational Chemistry in Teaching
and Research at UL Lafayette

PRINCIPAL INVESTIGATOR: Kathleen Knierim

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 10 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 10 (of 10 points)
B.2 15.5 (of 21 points)
B.3 5 (of 5 points)
B.4 5 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

88.5

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$11,255</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$11,255</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to upgrade the computational chemistry infrastructure through the acquisition of a site license for the newest versions of Gaussian and Gauss View, as well as two computers. This would greatly enhance accessibility to the computational program; by extension, research productivity should also increase. Overall, the work plan is well executed with easily measurable objectives. One concern is the use of the Windows version of Gaussian as a training tool for teaching students to prepare input files and to read output files from a supercomputer, as these files are very different. The impact will be significant relative to the small request. Full funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 31CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Enhancement of Metal Analysis by Inductively Coupled Plasma
Optical Emission Spectrometry in Education and Research

PRINCIPAL INVESTIGATOR: Febee Louka

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 4.5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 19 (of 21 points)
B.3 4 (of 5 points)
B.4 4.5 (of 5 points)
B.5 2 (of 5 points)
B.6 4.5 (of 5 points)
B.7 3.5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

86

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY Requested Amount: \$98,803
RECOMMENDATIONS: Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire an ICP-OES. The rationale is clearly established. The piece will enhance the current equipment, and provide additional training for students in research and teaching labs that is highly relevant to the Louisiana workforce. Several departments will benefit. The objectives are clear and measurable, and the work plan is well executed with an appropriate timeline to complete the proposed objectives. The impact on student quality is not addressed, and the impact on faculty development is not clearly established. The proposal mentions new hires, but their relation to this equipment is not immediately obvious. With limited resources available, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 32CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Integrating Thermal Analyzer and Thermal Techniques into
Chemistry Teaching and Research Laboratories for
Undergraduates Majoring in Chemistry and Chemical Engineering

PRINCIPAL INVESTIGATOR: Salah Massoud

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 5 (of 5 points)
A.3 4.5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7.5 (of 10 points)
B.2 17 (of 21 points)
B.3 4 (of 5 points)
B.4 5 (of 5 points)
B.5 4 (of 5 points)
B.6 4 (of 5 points)
B.7 3 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

83

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$44,831</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire an integrated STA thermal analyzer to enhance the undergraduate curriculum in thermal analyses and enhance faculty research capabilities. It provides informative background information and establishes how the instrument would be incorporated into some lab courses. However, the significance of some of the experiments is unclear. Additional information on how the equipment would be used in faculty research and collaborations would be helpful. This proposal could be strengthened by including letters of endorsement from mentioned collaborating department representatives and researchers. Many Biology and Engineering courses are listed but details are lacking on how the requested equipment will be implemented to achieve project goals. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 33CHE-17

INSTITUTION: University of Louisiana at Lafayette

TITLE OF PROPOSAL: Strengthen Polymer Separation and Characterization Capacity to
Enhance Undergraduate Teaching and Research

PRINCIPAL INVESTIGATOR: Wu Xu

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 1 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 10 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7 (of 10 points)
B.2 18 (of 21 points)
B.3 4 (of 5 points)
B.4 3 (of 5 points)
B.5 4 (of 5 points)
B.6 3 (of 5 points)
B.7 5 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

79

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount: <u>\$31,510</u> Recommended Amount: <u>\$0</u>
----------------------------------------	---------------------------------------------------------------------

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a centrifuge separation instrument and a PCR thermal recycler to replace outdated equipment. Overall, this is a solid proposal. However, no evidence is provided to support the argument that the proposed instruments will augment a variety of teaching labs. Instead, it appears the equipment will support the team's research agenda. Additionally, while the goals are measurable, the timeline for accomplishing the goals does not appear realistic. There is no discussion of maintenance or upkeep. While this equipment is essential to understanding natural biopolymers, the ties to the synthetic polymer industry mentioned in the proposal are not readily apparent. The need is clear, particularly from a biochemistry or chemical biology standpoint, but this connection is superficial. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 34CHE-17

INSTITUTION: University of Louisiana at Monroe

TITLE OF PROPOSAL: Acquisition of an Ultra-High Performance Liquid Chromatography
[UHPLC] Equipment to Complement and Strengthen the
Instrumentation Facility in the School of Sciences at ULM

PRINCIPAL INVESTIGATOR: Emad El-Giar

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
A.2 5 (of 5 points)
A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 18.5 (of 21 points)
B.3 5 (of 5 points)
B.4 3 (of 5 points)
B.5 5 (of 5 points)
B.6 4.5 (of 5 points)
B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9.5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes No x

G. Total Score:

87.5

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$92,844</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

The School of Sciences seeks to acquire an ultra-high performance liquid chromatography instrument that includes multiple detection capabilities to enhance teaching and research at ULM. The rationale is clearly presented. Overall, the work plan and evaluation for resulting research activities are good. Various faculty from Chemistry, Pharmacy, and Biology would also incorporate this equipment into research and student training. The shortcomings of the current HPLC would be resolved by the new system. No experimental protocols are described that will be developed and incorporated into the Chemistry curriculum. Institutional support is evident through letters of support and matching funds. However, with limited funds available, funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 35CHE-17

INSTITUTION: University of New Orleans

TITLE OF PROPOSAL: A Gas Chromatograph for Organic Analysis in Advanced
Laboratories and Research

PRINCIPAL INVESTIGATOR: Mark Trudell

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No _____
A.2 3.5 (of 5 points)
A.3 4.5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 7.5 (of 10 points)
B.2 18 (of 21 points)
B.3 4 (of 5 points)
B.4 3.5 (of 5 points)
B.5 3.5 (of 5 points)
B.6 4 (of 5 points)
B.7 3 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11.5 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes x No _____

G. Total Score:

83

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount: <u>\$25,000</u> Recommended Amount: <u>\$0</u>
----------------------------------------	---------------------------------------------------------------------

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal seeks to acquire a Gas Chromatograph (GC) with a thermal-conductivity detector (TCD) and necessary columns to support basic and applied research. The rationale and objectives for the project are reasonable. It would enhance the capabilities of faculty researchers for securing external funding and collaboration with industry. However, the proposal lacks specifics on how the equipment would be used in the mentioned courses, and instructional activities that would be compromised by the lack of a GC with TCD. It is not clearly established how it would complement the existing GC in curricular enhancements. The evaluation plan is limited and lacks assessment metrics. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 36CHE-17

INSTITUTION: Xavier University

TITLE OF PROPOSAL: Acquisition of Modern Instrumentation for Analytical Curriculum

PRINCIPAL INVESTIGATOR: Mehnaaz Ali

A. The Current Situation

(Total of 10 Points)

A.1 Yes x No
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b (For NS/NE)

B. The Enhancement Plan

(Total of 56 Points)

B.1 9 (of 10 points)
B.2 18 (of 21 points)
B.3 5 (of 5 points)
B.4 5 (of 5 points)
B.5 5 (of 5 points)
B.6 4 (of 5 points)
B.7 4 (of 5 points)

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes No x

G. Total Score:

88

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding.)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$131,805</u>
RECOMMENDATIONS:	Recommended Amount:	<u>\$67,722</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work.)

This proposal requests support for instruments to enhance the analytical chemistry curriculum and capabilities. The goal of this project is to modernize the curriculum at Xavier by providing hands-on experience in problem solving and experimental design with modern instrumentation (MicroLab equipment, a research grade spectrophotometer and a potentiostat). The rationale for enhancing the analytical laboratory courses is good and reflects current trends toward problem-based instructional pedagogy. However, more details could be provided to show how the research-grade spectrophotometer and potentiometer will be effectively infused into the problem-based pedagogy. The proposal is well presented but lacks details in the execution of problem-based instructional approaches. This aspect could be better developed for effective evaluation. Partial funding for the MicroLab equipment is recommended. Funding is not recommended for additional equipment, taxes, and salary/release time. The institutional match may be reduced proportionately.

Appendix A

Summary List of Proposals

**Proposals Submitted to the Traditional Enhancement Program - Chemistry
for the FY 2016-17 Review Cycle**

Proposal Number	PI Name	Institution	Duration	Equipment/Non Equipment	Project Title	Amount Requested		
						Year 1	Year 2	Total
001CHE-17	Dr. Dewayne Logan	Baton Rouge Community College	1 Year	E	The Enhancement of NMR capabilities in the Sciences for Teaching and Research at Baton Rouge Community College	\$59,556.00	\$0.00	\$59,556.00
002CHE-17	Dr. Divina Miranda	Baton Rouge Community College	1 Year	E	Enhancing Laboratory Instruction and Research in Chemistry Through the Acquisition of a Fluorescence Spectrophotometer	\$27,137.00	\$0.00	\$27,137.00
003CHE-17	Dr. Thomas Ticich	Centenary College	1 Year	E	Sustaining and Enhancing a 21st Century Chemistry Curriculum Through Computational Tools	\$39,183.00	\$0.00	\$39,183.00
004CHE-17	Dr. Kayanush Aryana	Louisiana State University Agricultural Center	1 Year	E	Reverse osmosis, micro, ultra and nano filtration equipment for teaching and research of concentration and fractionation of targeted chemical components in fluid foods.	\$136,263.00	\$0.00	\$136,263.00
005CHE-17	Prof. Leslie Butler	Louisiana State University and A & M College	2 Years	NE	Expanding the LSU CAMD Synchrotron User Community	\$30,000.00	\$0.00	\$30,000.00
006CHE-17	Prof. Rendy Kartika	Louisiana State University and A & M College	1 Year	E	Enhanced Probe Capabilities for 500 MHz NMR Spectrometer	\$79,900.00	\$0.00	\$79,900.00
007CHE-17	Prof. Evgueni Nesterov	Louisiana State University and A & M College	1 Year	E	Shared Facilities for Materials Research: Upgrade of the Small-Angle X-Ray Scattering Beamline at LSU CAMD	\$204,951.00	\$0.00	\$204,951.00
008CHE-17	Prof. Justin Ragains	Louisiana State University and A & M College	1 Year	E	Accurate Mass ESI TOF Mass Spectrometer	\$134,691.00	\$0.00	\$134,691.00
009CHE-17	Dr. George Stanley	Louisiana State University and A & M College	1 Year	E	Enhancement of the LSU Chemistry X-ray Facility	\$155,000.00	\$0.00	\$155,000.00
010CHE-17	Dr. David Vinyard	Louisiana State University and A & M College	2 Years	E	Enhancement of the LSU Electron Paramagnetic Resonance Spectroscopy Facility: Low Temperature Stability and Helium Conservation	\$125,210.00	\$0.00	\$125,210.00
011CHE-17	Dr. Gerard Dumancas	Louisiana State University at Alexandria	1 Year	E	Enhancing the Chemistry Curriculum at LSUA through the Acquisition of Gas Chromatography-Mass Spectrometer [GC-MS] and Atomic Absorption Spectrometer [AAS] Equipment	\$130,048.00	\$0.00	\$130,048.00
012CHE-17	Prof. Elahe Mahdavian	Louisiana State University in Shreveport	1 Year	E	Enhancement of Research Infrastructure for Drug Discovery Projects at LSUS	\$0.00	\$0.00	\$0.00
013CHE-17	Dr. William Yu	Louisiana State University in Shreveport	2 Years	E	AFM for Chemistry and Nanoscience Education and Research	\$125,000.00	\$0.00	\$125,000.00

**Proposals Submitted to the Traditional Enhancement Program - Chemistry
for the FY 2016-17 Review Cycle**

Proposal Number	PI Name	Institution	Duration	Equipment/Non Equipment	Project Title	Amount Requested		
						Year 1	Year 2	Total
014CHE-17	Prof. Upali Siriwardane	Louisiana Tech University	1 Year	E	Incorporation of modern chemical separation techniques [GC/HPLC] into LA Tech Integrated Chemistry/Environmental Science Labs	\$85,220.00	\$0.00	\$85,220.00
015CHE-17	Dr. Lynn Koplitz	Loyola University New Orleans	1 Year	E	Characterization of Powdered Samples for Teaching and Research	\$124,491.00	\$0.00	\$124,491.00
016CHE-17	Prof. Raj Boopathy	Nicholls State University	1 Year	E	Acquisition of Liquid Chromatograph-Mass Spectrometer [LC-MS] to Enhance Environmental Chemistry Curriculum at Nicholls State University	\$129,402.00	\$0.00	\$129,402.00
017CHE-17	Dr. Matthew Marlow	Nicholls State University	1 Year	E	Enhancing Undergraduate Biological Molecular Structure and Dynamics Education and Research with Acquisition of a Inverse NMR probe and a Luminescence Spectrophotometer	\$99,356.00	\$0.00	\$99,356.00
018CHE-17	Prof. Shreyashi Ganguly	Northwestern State University	1 Year	E	Enriching Chemistry Undergraduate Courses with Fluorescence Spectrophotometer	\$22,167.00	\$0.00	\$22,167.00
019CHE-17	Prof. Jennifer Hill	Northwestern State University	1 Year	E	Enhancement of Undergraduate Scholarship in Chemistry through Nuclear Magnetic Resonance Spectroscopy	\$98,300.00	\$0.00	\$98,300.00
020CHE-17	Dr. Christopher Lyles	Northwestern State University	1 Year	E	Establishment of a chromatography suite for monitoring chemical 'fates' and determining chemical structure in science laboratories	\$108,176.00	\$0.00	\$108,176.00
021CHE-17	Dr. Chad Thibodeaux	Northwestern State University	1 Year	E	Microwave Plasma Atomic Emission Spectrometer for Enhancement of the Physical Science Program	\$64,689.00	\$0.00	\$64,689.00
022CHE-17	Mr. Stephen Waddell	Nunez Community College	1 Year	E	Revitalizing Chemistry	\$280,844.00	\$0.00	\$280,844.00
023CHE-17	Dr. Phillip Voegel	Southeastern Louisiana University	1 Year	E	Modernization of Separation Sciences and Atomic Spectroscopy Instrumentation for Enhancement of Education and Undergraduate Research at Southeastern Louisiana University	\$135,678.00	\$0.00	\$135,678.00
024CHE-17	Dr. Nebiat Sisay	Southern University at New Orleans	1 Year	E	Request for Fourier Transform-Infrared Spectrometry [FT-IR] to enhance the programs in the Department of Natural Sciences	\$63,655.00	\$0.00	\$63,655.00
025CHE-17	Prof. Joel Mague	Tulane University	1 Year	E	Enhancement of the Tulane X-ray Crystallography Laboratory	\$200,000.00	\$0.00	\$200,000.00
026CHE-17	Prof. Igor Rubtsov	Tulane University	1 Year	E	Enhancing spectroscopic measurements at interfaces	\$104,914.00	\$0.00	\$104,914.00

**Proposals Submitted to the Traditional Enhancement Program - Chemistry
for the FY 2016-17 Review Cycle**

Proposal Number	PI Name	Institution	Duration	Equipment/Non Equipment	Project Title	Amount Requested		
						Year 1	Year 2	Total
027CHE-17	Dr. Darryl Holliday	University of Holy Cross	1 Year	E	Chemistry Education and Outreach Infrastructure Project	\$100,515.00	\$0.00	\$100,515.00
028CHE-17	Prof. August Gallo	University of Louisiana at Lafayette	1 Year	E	Acquisition of a Bench Top NMR Spectrometer for Integration into the Chemistry Curriculum	\$60,175.00	\$0.00	\$60,175.00
029CHE-17	Prof. Thomas Junk	University of Louisiana at Lafayette	1 Year	E	Introduction of UL Lafayette's Chemistry Program to Microwave Assisted Techniques	\$76,120.00	\$0.00	\$76,120.00
030CHE-17	Dr. Kathleen Knierim	University of Louisiana at Lafayette	1 Year	E	Expanding the Application of Computational Chemistry in Teaching and Research at UL Lafayette	\$11,255.00	\$0.00	\$11,255.00
031CHE-17	Dr. Febee Louka	University of Louisiana at Lafayette	1 Year	E	Enhancement of Metal Analysis by Inductively Coupled Plasma Optical Emission Spectrometry in Education and Research	\$98,803.00	\$0.00	\$98,803.00
032CHE-17	Prof. Salah Massoud	University of Louisiana at Lafayette	1 Year	E	Integrating Thermal Analyzer and Thermal Techniques into Chemistry Teaching and Research Laboratories for Undergraduates Majoring in Chemistry and Chemical Engineering	\$44,831.00	\$0.00	\$44,831.00
033CHE-17	Prof. Wu Xu	University of Louisiana at Lafayette	1 Year	E	Strengthen polymer separation and characterization capacity to enhance undergraduate teaching and research	\$31,510.00	\$0.00	\$31,510.00
034CHE-17	Dr. Emad El-Giar	University of Louisiana at Monroe	1 Year	E	Acquisition of an ultra-high performance liquid chromatography [UHPLC] equipment to complement and strengthen the instrumentation facility in the School of Sciences at ULM	\$92,844.00	\$0.00	\$92,844.00
035CHE-17	Prof. Mark Trudell	University of New Orleans	1 Year	E	A Gas Chromatograph for Organic Analysis in Advanced Laboratories and Research	\$25,000.00	\$0.00	\$25,000.00
036CHE-17	Prof. Mehnaaz Ali	Xavier University	1 Year	E	Acquisition of modern instrumentation for Analytical curriculum	\$131,805.00	\$0.00	\$131,805.00
Total Number of Proposals submitted			36					
Total Money Requested for First Year			\$3,436,689.00					
Total Money Requested for Second Year			\$0.00					
Total Money Requested			\$3,436,689.00					

Appendix B

Rating Forms

BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2016-17

RATING FORM FOR TRADITIONAL AND UNDERGRADUATE ENHANCEMENT PROPOSALS
PURCHASE OF INSTRUCTIONAL AND RESEARCH EQUIPMENT

INSTRUCTIONS: The completed evaluation form should represent the consensus of the expert members of the review panel and, as such, must reflect the final decisions of that panel. Review this form and the program guidelines prior to reading the proposal. The higher the score, the more clearly the proposal satisfies the criterion under consideration.

A. THE CURRENT SITUATION—10 points

- YES _____ NO _____
- _____ of 5 pts. A.1 Has the applicant adequately described the institution and unit(s)/department(s) that will benefit from the project, especially in terms of mission, faculty, students, and relevant institutional or departmental resources?
- _____ of 5 pts. A.2 To what extent will the proposed project enhance the affected department(s)/unit(s) and/or curricula?
- _____ of 5 pts. A.3 To what extent will the project complement and improve upon existing resources of the department(s) or unit(s)?

B. THE ENHANCEMENT PLAN—56 points

- of 10 pts. B.1 Are the goals and objectives clearly stated? Are they realistic? Are the objectives measurable? Can the objectives be completed within the timeframe detailed in the proposal?
- of 21 pts. B.2 Does the work plan sufficiently describe the activities that will be undertaken to achieve the goals and objectives of the proposal with responsible individuals listed for each activity and a schedule of// activities with benchmarks to be accomplished?
- of 5 pts. B.3 To what extent will the proposed project propel the department(s)/ unit(s) into attaining a high level of regional, national, or international eminence--or maintaining a current high level of eminence-- commensurate with degree offerings and/or functions?
- of 5 pts. B.4 To what extent will the proposed project have an impact on the variety and/or quality of curricular offerings and instructional methods within the affected department(s) or unit(s)?
- of 5 pts. B.5 To what extent will the proposed project enhance the ability of the department(s) or unit(s) to attract and/or retain students of high quality, particularly high quality students from Louisiana?
- of 5 pts. B.6 To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogy?
- of 5 pts. B.7 To what extent does the proposal indicate how the PIs will assess/evaluate the degree to which the project has achieved its goals?

C. EQUIPMENT—10 points

- of 6 pts. C.1 To what extent has the proposal established a relationship between the enhancement plan activities and the type of equipment requested? Is the equipment well-justified? Will it significantly enhance the existing technological capability of the department(s)/units(s)? Does it reflect current and projected trends in technology?
- of 1 pt. C.2 Is there a thorough survey of the current equipment inventory and does the proposal plan to make full use of the equipment?
- of 3 pts. C.3 To what extent does the proposal present a reasonable plan to ensure a maximum usable lifetime for the equipment? Are housing and maintenance arrangements for equipment adequate?

D. FACULTY AND STAFF EXPERTISE—12 points

_____ of 12 pts D.1 Are the faculty and support staff appropriately qualified to implement this project? If special training will be required for faculty and/or other personnel, has an appropriate plan been developed?

E. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT—12 points

_____ of 2 pts. E.1 To what extent will the project assist in establishing a new relationship or strengthen an existing relationship with one or more industrial/institutional sponsors (e.g., private business, trade organization, professional organization, non-profit or community organization, another college or university or consortium of colleges and universities, federal government agency)?

_____ of 10 pts. E.2 To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing economic, cultural and/or academic development and/or resources in Louisiana?

F. PREVIOUS SUPPORT FUND AWARDS—No points assigned

YES ___ NO _____ F.1 If the Project Director or Co-Project Director has received previous Support Fund support, has it been adequately documented?

G. TOTAL SCORE (NOTE: Proposals with a total score below 70 will not be recommended for funding.)

_____ of 100 points

SPECIFIC BUDGETARY RECOMMENDATIONS

Requested Amount \$ _____ Recommended Amount \$ _____

I agree to maintain in confidence any information, documentation and material of any kind (hereinafter referred to as "Material") included in this proposal; I further agree not to disclose, divulge, publish, file patent application on, claim ownership of, exploit or make any other use whatsoever of said "Material" without the written permission of the principal investigator. To the best of my knowledge, no conflict of interest is created as a result of my reviewing this proposal.

Reviewer's Name and Institution: _____

Reviewer's Signature: _____ Date: _____

(Form 6.11, rev 2015)

BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2016-17

**RATING FORM FOR TRADITIONAL AND UNDERGRADUATE ENHANCEMENT PROPOSALS
REQUESTS OTHER THAN EQUIPMENT PURCHASES (e.g., Colloquia, Curricular Revisions, etc.)**

INSTRUCTIONS: The completed evaluation form should represent the consensus of the expert members of the review panel and, as such, must reflect the final decisions of that panel. Review this form and the program guidelines prior to reading the proposal. The higher the score, the more clearly the proposal satisfies the criterion under consideration.

A. THE CURRENT SITUATION—10 points

- YES _____ NO _____
- _____ of 5 pts. A.1 Has the applicant adequately described the institution and department(s)/unit(s) that will benefit from the project, especially in terms of mission, faculty, students, and relevant institutional or departmental resources?
- _____ of 5 pts. A.2 To what extent will the proposed project enhance the affected department(s)/unit(s) and/or curricula?
- _____ of 5 pts. A.3 To what extent will the project complement and improve upon existing resources of the department(s)/unit(s)?

B. THE ENHANCEMENT PLAN—66 points

- _____ of 10 pts. B.1 Are the goals and objectives clearly stated? Are they realistic? Are the objectives measurable? Can the objectives be completed within the timeframe detailed in the proposal?
- _____ of 20 pts. B.2 Does the work plan sufficiently describe the activities that will be undertaken to achieve the goals and objectives of the proposal with responsible individuals listed for each activity and a schedule of activities with benchmarks to be accomplished?
- _____ of 8 pts. B.3 To what extent will the proposed project propel the department(s)/unit(s) into attaining a high level of regional, national, or international eminence--or maintaining a current high level of eminence—commensurate with degree offerings and/or functions?
- _____ of 8 pts. B.4 To what extent will the proposed project have an impact on the variety and quality of curricular offerings and instructional methods within the affected department(s) or unit(s)?
- _____ of 8 pts. B.5 To what extent will the proposed project enhance the ability of the department(s) or unit(s) to attract and/or retain students of high quality, particularly high quality students from Louisiana?
- _____ of 8 pts. B.6 To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogy?
- _____ of 4 pts. B.7 To what extent does the proposal indicate how the PIs will assess/evaluate the degree to which the project has achieved its goals?

C. FACULTY AND STAFF EXPERTISE—12 points

- _____ of 12 pts. C.1 Are faculty and support staff appropriately qualified to implement the project? If special training will be required for faculty and/or other personnel, has an appropriate plan been developed?

D. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT—12 points

- _____ of 2 pts. D.1 To what extent will the project assist in establishing a new relationship or strengthen an existing relationship with one or more industrial/institutional sponsors (e.g., private business, trade organization, professional organization, non-profit or community organization, or another college or university or consortium of colleges and universities, federal government agency)?
- _____ of 10 pts. D.2 To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing economic, cultural and/or academic development and/or resources in Louisiana?

E. PREVIOUS SUPPORT FUND AWARDS—No points assigned

YES ___ NO ___ E.1 If the Project Director or Co-Project Director has received previous Support Fund support, has it been adequately documented?

F. TOTAL SCORE (NOTE: Proposals with a total score below 70 will not be recommended for funding.)
___ of 100 points

SPECIFIC BUDGETARY RECOMMENDATIONS

Requested Amount \$ _____ Recommended Amount \$ _____

I agree to maintain in confidence any information, documentation and material of any kind (hereinafter referred to as "Material") included in this proposal; I further agree not to disclose, divulge, publish, file patent application on, claim ownership of, exploit or make any other use whatsoever of said "Material" without the written permission of the principal investigator. To the best of my knowledge, no conflict of interest is created as a result of my reviewing this proposal.

Reviewer's Name and Institution: _____

Reviewer's Signature: _____ Date: _____

(Form 6.12, rev 2015)