

**BOARD OF REGENTS SUPPORT FUND**  
**TRADITIONAL ENHANCEMENT COMPONENT, FY 2010-11**  
**REVIEW OF CHEMISTRY PROPOSALS**

**Introduction**

A review panel consisting of Dr. Isai T. Urasa (Chair), Hampton University; Dr. Richard Foust, James Madison University (VA); and Dr. Cass D. Parker, Clark Atlanta University (GA) met in Baton Rouge, February 25-26, 2011 to evaluate thirty-six (36) proposals submitted to the Traditional Enhancement component of the Board of Regents Support Fund (BoRSF). The proposals requested a total of \$4,711,280 in first-year funding. No proposals requested funding in the second year.

The panel was directed to the following materials prior to the visit: (1) the 36 proposals and their appropriate rating forms; (2) a summary of the proposals submitted listing titles, PIs and their institutions, funds requested; (3) the 2010-11 Traditional and Undergraduate Enhancement Program RFP containing the criteria for evaluation; and (4) a copy of the most recent (2008) Chemistry Report. After studying all proposals before arrival in Baton Rouge, the panel reviewed and evaluated them at the meeting. Each proposal was discussed individually and its merits evaluated with respect to criteria enumerated in the RFP. Each proposal received a thorough and impartial review. Subsequent to the individual evaluations, the panel ranked all proposals and recommended funding levels for those deemed worthy of funding.

This report contains three tables that score and rank all proposals. Table I contains a rank-order list of the eight (8) proposals that are highly recommended for funding with the recommended funding levels. A total of \$1,240,250 was recommended to fund six (6) proposals at the level requested and two (2) partially.

Table II contains the twelve (12) proposals that were recommended for funding if additional funds become available. Table III contains the fourteen (14) proposals that were not recommended for funding. A detailed review of each proposal follows 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 appended at the end of the report.

This year two proposals (006CHE-11 and 035CHE-11) were not sufficiently related to chemistry to be scored and ranked. The panel recommended resubmission of both proposals in the appropriate funding cycle when the primary discipline of each proposal is eligible.

**TABLE I**  
**2011 CHEMISTRY ENHANCEMENT**  
**PROPOSALS HIGHLY RECOMMENDED FOR FUNDING**

<b>RANK</b>	<b>RATING</b>	<b>PROPOSAL NO.</b>	<b>INSTITUTION</b>	<b>FIRST YEAR FUNDS REQUESTED</b>	<b>FIRST YEAR FUNDS RECOMMENDED</b>	<b>SECOND YEAR FUNDS REQUESTED</b>	<b>SECOND YEAR FUNDS RECOMMENDED</b>
1	89	036CHE-11	UNO	\$45,000	\$45,000		
2	88	028CHE-11	TULANE	\$176,730	\$176,730		
3	87	005CHE-11	LSU-BR	\$245,610	\$210,660		
4	86	034CHE-11	UNO	\$307,042	\$293,641		
5	85	008CHE-11	LSU-BR	\$177,704	\$177,704		
6	84	025CHE-11	SU-BR	\$49,716	\$49,716		
7	83	019CHE-11	McNEESE	\$218,200	\$218,200	\$0	\$0
8	82	016CHE-11	LA TECH	\$68,599	\$68,599		
<b>TOTALS:</b>				<b>\$1,288,601</b>	<b>\$1,240,250</b>	<b>\$0</b>	<b>\$0</b>

**TABLE II**  
**2011 CHEMISTRY ENHANCEMENT**  
**PROPOSALS RECOMMENDED FOR FUNDING**  
**IF ADDITIONAL FUNDS BECOME AVAILABLE**

<b>RANK</b>	<b>RATING</b>	<b>PROPOSAL NO.</b>	<b>INSTITUTION</b>	<b>FIRST YEAR FUNDS REQUESTED</b>	<b>FIRST YEAR FUNDS RECOMMENDED</b>
9	81	031CHE-11	ULL	\$38,261	\$38,261
10	80	029CHE-11	ULL	\$167,675	\$167,675
11	79	009CHE-11	LSU-BR	\$40,000	\$40,000
12	78	012CHE-11	LSU-BR	\$297,000	\$297,000
13	77	017CHE-11	LOYOLA	\$90,648	\$90,648
14	76	027CHE-11	TULANE	\$89,500	\$89,500
15	75	011CHE-11	LSU-BR	\$301,500	\$301,500
16	74	013CHE-11	LSU-S	\$127,581	\$127,581
17	73	018CHE-11	LOYOLA	\$342,811	\$342,811
18	72	007CHE-11	LSU-BR	\$106,119	\$106,119
19	71	020CHE-11	McNEESE	\$25,425	\$25,425
20	70	001CHE-11	CENTENARY	\$213,863	\$213,863
			<b>TOTALS:</b>	<b>\$1,840,383</b>	<b>\$1,840,383</b>

**TABLE III**  
**2011 CHEMISTRY ENHANCEMENT**  
**PROPOSALS NOT RECOMMENDED FOR FUNDING**

<b>RANK</b>	<b>RATING</b>	<b>PROPOSAL NO.</b>	<b>INSTITUTION</b>	<b>FIRST YEAR FUNDS REQUESTED</b>	<b>FIRST YEAR FUNDS RECOMMENDED</b>	<b>SECOND YEAR FUNDS REQUESTED</b>	<b>SECOND YEAR FUNDS RECOMMENDED</b>
21	69	004CHE-11	LSU-AG	\$171,390	\$0		
21	69	015CHE-11	LA TECH	\$76,287	\$0		
21	69	026CHE-11	SU-BR	\$146,229	\$0	\$0	\$0
21	69	032CHE-11	ULM	\$20,240	\$0		
25	68	014CHE-11	LA TECH	\$100,000	\$0		
25	68	030CHE-11	ULL	\$12,947	\$0		
27	66	010CHE-11	LSU-BR	\$226,455	\$0		
27	66	022CHE-11	NICHOLLS	\$75,858	\$0		
27	66	024CHE-11	NUNEZ	\$164,711	\$0		
30	65	003CHE-11	LSU-AG	\$196,235	\$0		
31	64	002CHE-11	LSU-AG	\$113,362	\$0		
32	63	023CHE-11	NORTHWESTERN	\$60,798	\$0		
32	63	033CHE-11	ULM	\$53,620	\$0		
34	60	021CHE-11	NICHOLLS	\$22,500	\$0		
		006CHE-11	LSU-BR	\$79,705	\$0		
		035CHE-11	UNO	\$61,959	\$0		
			<b>TOTALS:</b>	<b>\$1,582,296</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 001CHE-11

INSTITUTION: Centenary College

PRINCIPAL INVESTIGATOR: Ernest Blakeney

TITLE OF PROPOSAL: Enhanced Capabilities in NMR Spectroscopy at Centenary College

## 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 6 (of 6 points)  
C.2 0 (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 \_\_\_\_\_ (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b 5 (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 3 (of 5 points)  
B.2 15 (of 18 points)  
B.3 15 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

70
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$213,863 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$213,863 become available)

A 400 MHz NMR is requested to be used as a central tool in the implementation of a guided inquiry instructional approach in organic chemistry and biochemistry at Centenary College. The instrument will also be accessible to other institutions, e.g., the LSU Health Sciences Center Shreveport. The introduction of a guided-inquiry approach is a sound goal. However, the application lacks clarity in several areas. It is unclear exactly how the NMR will be integrated in laboratory instruction for the intended purpose. To what extent will students be able to operate the instrument? Will other instruments be included in the guided-inquiry approach, and if so, how will that be done? A clear plan for instrument operation and management for the intended multi-use, including provisions for user training, should have been provided. The proposal is recommended for full funding if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 002CHE-11

INSTITUTION: Louisiana State University and A&M College - Agricultural Center

PRINCIPAL INVESTIGATOR: Joan King

TITLE OF PROPOSAL: Enhancing the Food Science Carbohydrate Laboratory

## A. The Current Situation

(Total of 10 Points)

A.1 Yes x No \_\_\_\_\_  
A.2 4 (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 1 (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 5 (of 5 points)  
B.2 8 (of 18 points)  
B.3 10 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 3 (of 6 points)  
B.7 Yes x No x

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

64
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$113,362

RECOMMENDATIONS: Recommended Amount: \$0

This application requests state-of-the-art equipment to be used in modernizing research and teaching in food science. The overall objective is consistent with the State of Louisiana's Vision 2020 for economic growth. Moreover, the requested instruments, e.g., HPLC, are suitable for research and teaching in food science. However, there was not enough explanation of existing resources and how they would be enhanced. In order for maximum benefit to be realized, it is important that good plans for using the facilities are in place. The training of students and others, for example, is important and information on this should have been provided. What new capabilities will this project facilitate that will bring about or add to institutional eminence? The panel does not recommend funding for this proposal.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 003CHE-11

INSTITUTION: Louisiana State University and A&M College - Agricultural Center

PRINCIPAL INVESTIGATOR: Cristina Sabliov

TITLE OF PROPOSAL: Acquisition of Characterization and Processing Equipment for Nanotechnology and Bioenergy Applications

## 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 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 5 (For S/E)  
or (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 9 (of 18 points)  
B.3 10 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 3 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

65
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$196,235  
RECOMMENDATIONS: Recommended Amount: \$0

The equipment requested in this application will augment existing facilities in nanotechnology and bioengineering to support new initiatives in biofuels research. While the equipment requested could have an impact, the proposal is somewhat lacking in explanations of how the equipment will be integrated in teaching and research. An example of a research program or project that would be enhanced should have been given to show how one particular instrument could make a difference in advancing the objectives of that program or project. Likewise, a specific example of a course or curriculum and how it will be advanced by a particular instrument should have been provided. The proposal is not recommended for funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 004CHE-11

INSTITUTION: Louisiana State University and A&M College - Agricultural Center

PRINCIPAL INVESTIGATOR: Qinglin Wu

TITLE OF PROPOSAL: Advanced Quartz Crystal Microbalance with Dissipation (QCM-D) Monitoring for Surface Chemistry Research and Development

## A. The Current Situation

(Total of 10 Points)

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

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

(Total of 12 Points)

E.1 1 (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 4 (of 5 points)  
B.2 13 (of 18 points)  
B.3 13 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

69
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$171,390  
RECOMMENDATIONS: Recommended Amount: \$0

A request is made for a quartz crystal microbalance to support research in materials science. This area of research cuts across several academic areas within the LSU System and includes some collaboration with industry. The equipment will complement existing devices dedicated to surface characterization. The long-term goal is to establish capability and eminence in surface chemistry. Overall, applied research, courses, and outreach programs would be enhanced. Apparently several research groups will have access to the facility but no details are stated regarding how to avoid overprescribing use of the instrument. The application lacks essential details, i.e., examples of existing facilities, number of students to be impacted, and how students and others will be trained. This proposal, as written, is not recommended for funding.



# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 005CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Julia Chan

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

## 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 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 5 (of 5 points)  
B.2 16 (of 18 points)  
B.3 15 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

87
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$245,610

RECOMMENDATIONS: Recommended Amount: \$210,660

The request in this application is for an upgrade of an 11-year-old x-ray diffractometer that is to be used primarily to support organic chemistry research. The facility will be made available to others as well within the LSU System. The new instrument will add to existing facilities used in structure determination. A number of publications have been generated in this area of research and the PIs hope that the new instrument will enhance productivity in this and related research programs. However, it is unclear how many students will be impacted. How will users and students be trained? In spite of reviewer concerns, the request is well rationalized. The proposal is recommended for funding at the reduced level of \$210,660 with full maintenance of the match listed on the Other line item. The panel suggests that the applicant consider other sources of support for the cryogenic system.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 006CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Mostafa Elseifi

TITLE OF PROPOSAL: Acquisition of an Advanced Rheometer to Support Teaching and Research in the Use of Bio-Wastes in Construction Applications

## A. The Current Situation

(Total of 10 Points)

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

## C. Equipment

(Total of 10 Points)

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

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

(Total of 12 Points)

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

## B. The Enhancement Plan

(Total of 56 Points)

B.1 \_\_\_\_\_ (of 5 points)  
B.2 \_\_\_\_\_ (of 18 points)  
B.3 \_\_\_\_\_ (of 20 points)  
B.4 \_\_\_\_\_ (of 5 points)  
B.5 \_\_\_\_\_ (of 2 points)  
B.6 \_\_\_\_\_ (of 6 points)  
B.7 Yes \_\_\_\_\_ No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 \_\_\_\_\_ (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No \_\_\_\_\_

G. Total Score: no score (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$79,705  
RECOMMENDATIONS: Recommended Amount: \$0

The panel did not rank this proposal since its primary subject matter is not sufficiently related to chemistry.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 007CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Kermit Murray

TITLE OF PROPOSAL: Nanoflow Liquid Chromatography System for Macromolecular Anaysis

## 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 3 (of 3 points)

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

(Total of 12 Points)

E.1 1 (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 5 (of 5 points)  
B.2 10 (of 18 points)  
B.3 10 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

72
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$106,119 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$106,119 become available)

A nanoflow HPLC system to complement existing LC-MS systems is requested. The combined facilities will support up to eight different research programs. The addition of nanoflow system capability would provide enhanced capability particularly where sample size is limited. The application is lacking in key areas. The facility will be used by several research groups, but the panel wondered how use of the equipment will be coordinated. How many students will potentially be impacted? What specific aspects or accomplishments will be expected with the new addition? The applicant is also vague regarding the potential economic impact of the project. Nevertheless, the project is recommended for full funding if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 008CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Evgueni Nesterov

TITLE OF PROPOSAL: Shared Facilities for Thin-Film Materials and Devices  
Fabrication and Characterization: Vacuum Deposition System  
and Near-Infrared Spectrometer

## 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 1 (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 5 (of 5 points)  
B.2 15 (of 18 points)  
B.3 12 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

85
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$177,704

RECOMMENDATIONS: Recommended Amount: \$177,704

The equipment requested will support materials research, which is a priority area of the LSU Department of Chemistry. About 80 PhD students will be impacted. The requested equipment will replace a fairly old system; therefore, significant improvement is expected in terms of research productivity and quality. However, the applicant does not address specifically how the new technology will catapult the program to new levels. Offered instead is a long list of accomplishments to date. What are some examples of existing and potential partnerships related to the research program? What is the departmental plan for equipment maintenance and repair? Despite these deficiencies, this is a good proposal that the panel recommends for full funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 009CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Amitava Roy

TITLE OF PROPOSAL: Synchrotron Small Angle X-ray Scattering

## 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 8 (For S/E)  
or (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 15 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

79
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$40,000 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$40,000 become available)

The equipment requested will be used to support research at the Center for Advanced Microstructures and Devices (CAMD) at LSU. CAMD is a synchrotron radiation-based research facility and the only such center in the South. A lot of information is provided in this application, much of it not to the point. Research programs that would benefit the facility were described, but it is unclear how the researchers will be accommodated at the Center. How will the requested addition catapult the program to higher levels? What is the procedure for using CAMD equipment and facilities? The panel recommends this application for full funding if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 010CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Steven Soper

TITLE OF PROPOSAL: Enhancement of Lithography-Based Processing Tools for Lab-on-a-Chip Devices in Chemistry and Biology

## 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 6 (of 6 points)  
C.2 0 (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 3 (of 5 points)  
B.2 10 (of 18 points)  
B.3 10 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

66
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$226,455  
RECOMMENDATIONS: Recommended Amount: \$0

This proposal seeks support for obtaining materials to make lab-on-a-chip devices. This is consistent with new interests at LSU to promote research in microfabrication with emphasis on sensing systems. The goals and objectives listed in the proposal are not specific to the equipment and materials requested. Implementation of the project is contingent on completion of a building annex in which the research will be conducted. The enhancement plan section was incomplete and rather vague, and the section on economic development was poorly addressed. The proposal as written is not recommended for funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 011CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: George Stanley

TITLE OF PROPOSAL: 600 MHz NMR for Chemistry and Biological Chemistry  
Research

## 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 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 3 (of 5 points)  
B.2 12 (of 18 points)  
B.3 12 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

75
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$301,500 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$301,500 become available)

Requested is a 600 MHz NMR to replace an aging 400 MHz unit. This addition will be among six other NMR spectrometers ranging from 250-750 MHz at LSU. The rationale is good, but it would have helped the panel if a categorical description of how and where the different systems would be used was provided. What areas will the new 600 MHz impact or what new research areas are planned? How will this equipment catapult the University to new levels in research? In addition to looking at new facilities as recruitment tools, it is important to show also how the facilities will impact current students. The panel recommends the proposal for full funding if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 012CHE-11

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Donghui Zhang

TITLE OF PROPOSAL: Acquisition of Shared, Multi-User Instrumentation Resources:  
A Suite of Tools for Chemical and Materials Characterizations

## 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 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 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 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 10 (of 20 points)  
B.4 5 (of 5 points)  
B.5 1 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

78
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$297,000 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$297,000 become available)

This proposal requests an ICP and an x-ray fluorescence spectrometer to support research in chemistry, chemical engineering, geology and geophysics. The proposal's goal is to provide a central system of equipment resources. However, the applicant did not indicate how this will be coordinated to accommodate work requests from the numerous areas mentioned. The enhancement plan is lacking in key information, including how this new equipment will catapult the institution to high levels and exactly how current students will be impacted. In the absence of quotations, bids, and other pertinent cost information, the panel could not determine the basis of the budget. Nevertheless, full funding is recommended if additional funds become available.



# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 013CHE-11

INSTITUTION: Louisiana State University and A&M College - Shreveport

PRINCIPAL INVESTIGATOR: Brian Salvatore

TITLE OF PROPOSAL: Enhancement of Chemical Synthesis Laboratory Facilities  
at LSUS

## 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 0 (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 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 10 (of 20 points)  
B.4 5 (of 5 points)  
B.5 0 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

74
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$127,581 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$127,581 become available)

LSU Shreveport requests funds for an FT-IR spectrometer, a digital refractometer, several melting point apparatuses, analytical balances, a gas chromatograph, upgrades to the NMR software and replacement batteries for the NMR UPS unit. These items are needed to replace broken and worn out items, which in some cases are over 20 years old. The need for the items requested is great and well justified. The infrastructure problems and the apparent lack of support from the administration for the chemistry program at LSU Shreveport cause the panel to question whether this investment will be sustained in the future if the requested funds are awarded. Nevertheless, the proposal is recommended for full funding if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 014CHE-11

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Marilyn Cox

TITLE OF PROPOSAL: NMR Spectrometer for Undergraduate Organic Chemistry  
Labs

## 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 0 (of 2 points)  
E.2a 0 (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 15 (of 18 points)  
B.3 15 (of 20 points)  
B.4 5 (of 5 points)  
B.5 0 (of 2 points)  
B.6 2 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 6 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

68
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$100,000  
RECOMMENDATIONS: Recommended Amount: \$0

This proposal requests funds to purchase an Anasazi Eft90 NMR spectrometer to replace an aging JOEL 270 MHz NMR spectrometer. The new NMR spectrometer is clearly a better match for planned uses in the undergraduate organic chemistry laboratory, where the instrument will see exclusive use, than the current 270 MHz NMR spectrometer. The proposal does not mention what will be done with the existing spectrometer. Although the desire to have access to a more rugged and robust instrument for undergraduate organic chemistry laboratory classes is understandable, the reviewers do not rate the concept of replacing a functioning instrument with a newer instrument of similar capabilities highly. As one of three proposals submitted from the Chemistry Department of Louisiana Tech University, the panel believes that a much stronger project would have resulted from a coherent department plan for instrument acquisition with priorities and justifications assigned to each instrument. This proposal is not recommended for funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 015CHE-11

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Sven Eklund

TITLE OF PROPOSAL: Industry Experience for Undergraduates Using Raman Spectroscopy

## 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 5 (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 6 (of 18 points)  
B.3 13 (of 20 points)  
B.4 2 (of 5 points)  
B.5 0 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

69
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$76,287  
RECOMMENDATIONS: Recommended Amount: \$0

Louisiana Tech PIs want to purchase a Raman spectrometer to be used in physical chemistry and environmental chemistry laboratories, and undergraduate research projects at the University. This instrument would be in addition to other instrumentation: a 270 MHz NMR, an FT-IR, a GC-MS, a UV-visible spectrophotometer, an electrochemistry workstation and an atomic absorption spectrophotometer. Several undergraduate experiments were proposed for the new spectrometer, but the pedagogical justification for adding Raman spectroscopy experiments into the classes was poorly addressed. The unique capabilities of Raman spectroscopy over the other types of spectroscopy that are currently carried out in the laboratory were also poorly addressed. Because Raman spectroscopy is not often included in undergraduate instrumentation laboratories, the PIs are encouraged to develop their ideas and submit an NSF TUES proposal. As one of three proposals submitted from the University's chemistry faculty, the panel believes that a stronger project would have resulted from a coherent department plan for instrument acquisition with priorities and justifications assigned to each instrument. This proposal is not recommended for funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 016CHE-11

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Bala Ramachandran

TITLE OF PROPOSAL: Shared Memory Computational Infrastructure for  
Computational Chemistry and Materials Science Education

## 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 5 (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 14 (of 18 points)  
B.3 15 (of 20 points)  
B.4 3 (of 5 points)  
B.5 0 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

82
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$68,599

RECOMMENDATIONS: Recommended Amount: \$68,599

This proposal requests computer hardware and software that will be used to support a well-developed computational chemistry program at Louisiana Tech University. Computational chemistry is currently used in the following classes: advanced physical chemistry, quantum mechanics, statistical thermodynamics, solid-state chemistry and nano-systems modeling. In addition to contributing to coursework, these computers will be a focal point for demonstrations and outreach activities to local high school teachers through a K-12 outreach program and an Engineer's Day held annually at Louisiana Tech. The equipment will be used because the existing LONI network is incapable of meeting the computational chemistry needs of the Department. This proposal is recommended for full funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 017CHE-11

INSTITUTION: Loyola University

PRINCIPAL INVESTIGATOR: Lynn Koplitz

TITLE OF PROPOSAL: Multiphase Analysis and Solid Structure Determination by  
Powder X-Ray Diffraction

## 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 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 0 (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 5 (of 5 points)  
B.2 15 (of 18 points)  
B.3 13 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

77
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$90,648 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$90,648 become available)

This proposal is a request for funds to purchase a powder x-ray diffractometer that will supplement existing instrumentation in the Chemistry Department at Loyola University New Orleans. The justification for the request is that the diffractometer will be heavily used in a planned forensic chemistry program. The instrument will also be used in upper division physical chemistry and instrumental analysis laboratories and with undergraduate research programs. This would be a new instrument for a Department that already has an impressive array of modern analytical instrumentation. However, the proposed experiments are not fully developed and it appeared to the reviewers to be just a menu of possible activities rather than a selection of well-developed student laboratory experiments. The panel, however, recommends full funding for the project if additional funds become available.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 018CHE-11

INSTITUTION: Loyola University

PRINCIPAL INVESTIGATOR: Thomas Spence

TITLE OF PROPOSAL: Liquid Chromatograph/Mass Spectrometer to Support Collaborative Industrial Research at Loyola University

## A. The Current Situation

(Total of 10 Points)

A.1 Yes x No \_\_\_\_\_  
A.2 5 (of 5 points)  
A.3 3 (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 1 (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 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 14 (of 20 points)  
B.4 3 (of 5 points)  
B.5 0 (of 2 points)  
B.6 3 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

73
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$342,811 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$342,811 become available)

This proposal is a request for funds to purchase a liquid chromatograph/mass spectrometer that will supplement existing instrumentation in the Chemistry Department at Loyola University. The LC-MS/MS will be used in the biochemistry laboratory and an advanced analytical chemistry laboratory in addition to a joint research program that will benefit three faculty members. The curriculum development plan lacked sufficient detail to evaluate the merits of the LC-MS/MS system requested. It is difficult to justify the expense of an LC-MS/MS system without additional details about how the instrument will be used, maintained and serviced. Nevertheless, if additional funds become available, the project is recommended for full funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 019CHE-11

INSTITUTION: McNeese State University

PRINCIPAL INVESTIGATOR: Ron Darbeau

TITLE OF PROPOSAL: Acquisition of a 300 MHz Nuclear Magnetic Resonance Spectrometer for Instruction and Research

**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     1     (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     5     (of 5 points)  
 B.2    18    (of 18 points)  
 B.3    10    (of 20 points)  
 B.4     5     (of 5 points)  
 B.5     1     (of 2 points)  
 B.6     6     (of 6 points)  
 B.7 Yes     x     No \_\_\_\_\_

**D. Faculty and Staff Expertise**

(Total of 12 Points)

D.1    12    (of 12 points)

**F. Previous Support Fund Awards**

(No Points Assigned)

F.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.)

		<u>YEAR 1</u>	<u>YEAR 2</u>
<b>SPECIFIC BUDGETARY RECOMMENDATIONS:</b>	<b>Requested Amount:</b>	<u>\$218,200</u>	<u>\$0</u>
	<b>Recommended Amount:</b>	<u>\$218,200</u>	<u>\$0</u>

The applicant requests funds to purchase a 300 MHz nuclear magnetic resonance spectrometer that will be used in instruction and research at McNeese State University. The requested instrument will replace an older 300 MHz NMR spectrometer that was damaged during the hurricanes of 2005 and is not repairable. The Department has invested considerable resources and effort to repair the existing NMR spectrometer to no avail. The magnet on the existing instrument was quenched during Hurricane Katrina and the faculty has not been able to get a stable instrument operating after numerous service calls. Without an NMR in the Chemistry Department, McNeese risks losing certification for the American Chemical Society-certified chemistry major. The Department estimates that approximately 2,000 students a year will benefit should this request be granted. The panel recommends this proposal for full funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 020CHE-11

INSTITUTION: McNeese State University

PRINCIPAL INVESTIGATOR: Joseph Sneddon

TITLE OF PROPOSAL: Incorporation of Microwave Technology into the  
Undergraduate Analytical and Organic Chemistry Laboratories

## A. The Current Situation

(Total of 10 Points)

A.1 Yes x No \_\_\_\_\_  
A.2 5 (of 5 points)  
A.3 2 (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 1 (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 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 10 (of 20 points)  
B.4 5 (of 5 points)  
B.5 0 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

71
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$25,425 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$25,425 become available)

This proposal requests funds to purchase a laboratory-based microwave unit for use in the analytical chemistry and organic chemistry laboratories at McNeese State University. The microwave system will be used for sample preparation in an analytical chemistry laboratory course, an instrumental analysis class, and to demonstrate "green synthesis" to organic chemistry students. Several faculty members would potentially benefit by having this instrument available to use with undergraduate research projects. The enhancement plan lacks details about the advantages of adding microwave technology to the curriculum. Specific applications in trace metal analysis and an expanded discussion of the reduced use of solvents in organic synthesis would have strengthened the proposal. This proposal is recommended for full funding if additional funds become available.



# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 021CHE-11

INSTITUTION: Nicholls State University

PRINCIPAL INVESTIGATOR: Ronald Baker

TITLE OF PROPOSAL: Acquisition of an FTIR Spectrometer for Chemistry Instruction

## 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 0 (of 2 points)  
E.2a 0 (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 10 (of 18 points)  
B.3 8 (of 20 points)  
B.4 5 (of 5 points)  
B.5 0 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

60
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$22,500  
RECOMMENDATIONS: Recommended Amount: \$0

This proposal requests funds to purchase an FT-IR spectrometer with an attenuated total reflectance (ATR) option package. The instrument would be used in the organic, inorganic, physical and instrumental analysis laboratories, in an advanced special topics course and in a forensic chemistry lab. The requested instrumentation will replace a non-functional FT-IR spectrometer. This proposal poorly addressed the enhancements that would result from funding and the economic and cultural development and impact section. Too much verbiage was devoted to explaining why the PI will purchase a specific instrument (Bomem) at the expense of discussing how the instrument would be used in the classes listed in the proposal. No funding is recommended.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 022CHE-11

INSTITUTION: Nicholls State University

PRINCIPAL INVESTIGATOR: Raj Boopathy

TITLE OF PROPOSAL: Upgrading Chemistry Instructional Equipment in the Environmental Chemistry Laboratory

## 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 0 (of 2 points)  
E.2a 0 (For S/E)  
or \_\_\_\_\_ (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 5 (of 5 points)  
B.2 9 (of 18 points)  
B.3 10 (of 20 points)  
B.4 2 (of 5 points)  
B.5 2 (of 2 points)  
B.6 6 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

66
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$75,858  
RECOMMENDATIONS: Recommended Amount: \$0

This proposal requests funds to be used to acquire instrumentation for undergraduate environmental chemistry laboratories. The items to be purchased include a multi-probe Hydrolab for fieldwork, a UV visible spectrophotometer, a high-performance liquid chromatograph and several additional items including pH meters and balances. This equipment would supplement existing instrumentation in the current laboratory. Two of the items requested--the UV visible spectrophotometer and the HPLC--are replacements for currently functioning but older analytical instruments. The justification for replacing these items is that they are "older instruments" that apparently do not add any increased capabilities to the program. Also, there does not appear to be need for the instruments based on enrollment pressures. For these reasons the panel does not recommend funding this proposal.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 023CHE-11

INSTITUTION: Northwestern State University

PRINCIPAL INVESTIGATOR: Massimo Bezoari

TITLE OF PROPOSAL: Acquisition of Spectrophotometric Instrumentation for Undergraduate Science Education and Research

## 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 2 (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 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 5 (of 5 points)  
B.2 15 (of 18 points)  
B.3 10 (of 20 points)  
B.4 2 (of 5 points)  
B.5 2 (of 2 points)  
B.6 0 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

63
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$60,798  
RECOMMENDATIONS: Recommended Amount: \$0

This proposal requests funds to purchase six UV-visible spectrophotometers that will replace Spectronic 20s that are currently used in lab experiments for students in the Louisiana Scholars' College and the Department of Mathematics and Physical Sciences at NSU. The justification for purchasing the instruments, as stated in the proposal, is: "The new instruments will not only augment student skills with modern instrumentation, but will allow students more time to reflect on the analytical data and the interpretation of results, as opposed to the mundane tasks of turning wavelength dials, writing down each wavelength and the absorbance result, and so on." The specific experiments that will be performed with these instruments were not identified and there were no enrollment numbers to justify purchasing six instruments. Beyond the point of saving time, the additional capabilities provided with scanning UV-visible spectrophotometers were not adequately justified. The panel does not recommend funding for this project.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 024CHE-11

INSTITUTION: Nunez Community College

PRINCIPAL INVESTIGATOR: Stephen Waddell

TITLE OF PROPOSAL: Enhancing Chemistry in the Community College

## 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 0 (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 5 (of 5 points)  
B.2 12 (of 18 points)  
B.3 10 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 3 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 6 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

66
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$164,711  
RECOMMENDATIONS: Recommended Amount: \$0

The Nunez Community College applicant requests funds to purchase replacement laboratory supplies that were lost during Hurricane Katrina. The requested items would permit students to perform general chemistry laboratory experiments and introduce them to chromatography. The proposal's enhancement plan lacks specific detail to enable the panel to evaluate how the requested items would be used. Describing the individual experiments and how they relate to the chemistry curriculum would have strengthened this proposal and the panel does not recommend funding for it.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 025CHE-11

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Sylvester Burton

TITLE OF PROPOSAL: Using Technology to Enhance the Conceptual Understanding of Undergraduate Chemistry

## 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 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 4 (of 5 points)  
B.2 15 (of 18 points)  
B.3 17 (of 20 points)  
B.4 4 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

84
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$49,716

RECOMMENDATIONS: Recommended Amount: \$49,716

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.)

Southern University-Baton Rouge seeks purchase of visualization software to introduce molecular modeling to students enrolled in chemistry courses. Currently the Department does not have such capabilities. The request would definitely be very beneficial for students; however, it was unclear what the immediate impact would be on the faculty and their research efforts. The major research impact stated was in area of synthetic chemistry. The proposal was very well written and its idea excellent. The proposal clearly argues for the project's strong potential, both in the curricula of the chemistry program and the anticipated impact on research activities at the institution. The panel recommends this application for full funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 026CHE-11

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Edwin Walker

TITLE OF PROPOSAL: The Enhancement of Raman Capabilities in the Chemical Sciences for Research and Teaching at Southern University

**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 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 4 (of 5 points)  
 B.2 12 (of 18 points)  
 B.3 14 (of 20 points)  
 B.4 4 (of 5 points)  
 B.5 1 (of 2 points)  
 B.6 4 (of 6 points)  
 B.7 Yes x No \_\_\_\_\_

**D. Faculty and Staff Expertise**

(Total of 12 Points)

D.1 8 (of 12 points)

**F. Previous Support Fund Awards**

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

**G. Total Score:** 69 (of 100 points)

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

		<u>YEAR 1</u>	<u>YEAR 2</u>
<b>SPECIFIC BUDGETARY RECOMMENDATIONS:</b>	<b>Requested Amount:</b>	<u>\$146,229</u>	<u>\$0</u>
	<b>Recommended Amount:</b>	<u>\$0</u>	<u>\$0</u>

The applicant seeks to acquire a Raman Spectrometer for use in the academic classroom and research. The proposal suggests that the Chemistry Department capabilities will be enhanced in both educational and research activities by this acquisition. The rationale is to address the need for the spectrometer in undergraduate research, but it was not clear regarding its impact on current research efforts. The lack of clear evidence to support the acquisition surely weakened the proposal. Regarding description of the instrument's potential uses in the undergraduate teaching program, the PI failed to indicate what the outcomes of the proposed activity would be. In addition, the research, both proposed and ongoing, did not provide a compelling argument for acquisition. The panel noted that some faculty are obtaining data for their research, but the proposal did not indicate where, when or how often faculty need to gather research data. A further weakness was lack of a compelling argument as to how this instrument would improve the institution's ability to attract and retain students and enhance student learning outcomes. No funding is recommended.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 027CHE-11

INSTITUTION: Tulane University

PRINCIPAL INVESTIGATOR: Joel Mague

TITLE OF PROPOSAL: An Increased Sensitivity Detector for the Smart APEX X-ray Diffractometer

## 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 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 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 3 (of 5 points)  
B.2 14 (of 18 points)  
B.3 15 (of 20 points)  
B.4 4 (of 5 points)  
B.5 1 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

76
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$89,500 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$89,500 become available)

The proposal is recommended for full funding if additional funds become available. The Tulane University PI wants to upgrade the current capabilities of an x-ray diffractometer. The upgrade would extend the capabilities of researchers at the institution and their collaborators elsewhere to probe and determine those structures that they currently cannot. The upgrade would support many research activities and close a gap in this burgeoning research department. The research program supported by this acquisition is very interesting and seems to have excellent potential. Reviewers, however, did note that the impact of the acquisition on the undergraduate program is not as compelling as it could have been.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 028CHE-11

INSTITUTION: Tulane University

PRINCIPAL INVESTIGATOR: Igor Rubtsov

TITLE OF PROPOSAL: Acquisition of a Laser System for State-of-the-Art Structural Studies

## 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 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 5 (of 5 points)  
B.2 16 (of 18 points)  
B.3 17 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No x

G. Total Score: 

88
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$176,730  
RECOMMENDATIONS: Recommended Amount: \$176,730

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 funding for the acquisition of femtosecond (fs) pulsed laser that will be added to current laser capabilities at Tulane University. The fs pulsed laser will be used to further develop the technique of and data acquisition for using 2D spectroscopy to probe molecular interactions and structures. The proposal's argument that the groundwork has been laid for a strong collaborative effort between multiple users, both inside and outside of the State, is convincing. The enhancement plan demonstrates clearly how the equipment would impact and grow current research efforts at the University and the educational activities of the students involved. The requested equipment is a pivotal expansion of the ongoing excellent research program. The project showed potential for developing a commercial-based instrument. The panel recommends full funding.



# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER:

029CHE-11

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: R. Devesh Misra

TITLE OF PROPOSAL: Thermal Analysis System to Enhance Polymer Science Teaching and Research

## 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 3 (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 4 (of 5 points)  
B.2 16 (of 18 points)  
B.3 17 (of 20 points)  
B.4 4 (of 5 points)  
B.5 2 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

80
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 (of 100 points)

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

SPECIFIC BUDGETARY RECOMMENDATIONS: Requested Amount: \$167,675 (if additional funds become available)  
Recommended Amount: \$167,675

## COMMENTS:

This proposal requests funding for a thermal analysis system to support faculty research efforts, collaborative and individual, and provide teaching and training opportunities for students in materials characterization. This characterization technique is not currently used at UL Lafayette, and the collaborative research programs of chemistry, chemical engineering and biology would see immediate benefits to research activities. Broad objectives were described and the potential impact of the acquisition was stated in the enhancement plan. This acquisition could be used to support student training in a number of courses, directly and indirectly, and is appropriate for growing the programs at the institution. However, the applicants failed to describe adequately how the acquisition would be shared other than through the training process, its location, and a user fee. Very little emphasis was placed on the current potential of the Co-PIs. The panel recommends supporting the acquisition of the TGA if additional funds become available, but the PIs should submit a more recent quote for the system if and when funding for this project is awarded.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 030CHE-11

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Richard Perkins

TITLE OF PROPOSAL: Potentiostat/Galvanostat for Research and Teaching

## 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 7 (For S/E)  
or (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 3 (of 5 points)  
B.2 13 (of 18 points)  
B.3 14 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

68
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$12,947  
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.)

The panel found this proposal to be poorly constructed. The applicant did not provide evidence of the impact of this acquisition beyond the research programs of "two faculty of our department." The enhancement plan failed to provide adequate justification for the proposed activities and their impact on the curricula or students beyond the research programs of the faculty involved. The panel does not recommend this proposal for funding.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 031CHE-11

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Wu Xu

TITLE OF PROPOSAL: Enhancement of Spectroscopy and Macromolecule  
Characterization Techniques in Chemistry Laboratories at  
University of Louisiana at Lafayette

## 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 2 (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 4 (of 5 points)  
B.2 15 (of 18 points)  
B.3 16 (of 20 points)  
B.4 4 (of 5 points)  
B.5 1 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

81
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$38,261 (if additional funds  
RECOMMENDATIONS: Recommended Amount: \$38,261 become available)

The panel recommends that the request for the acquisition of a UV-visible spectrophotometer to support undergraduate teaching and research be fully funded if additional funds become available. The PI's rationale is contained in the well-written enhancement plan and the impact on teaching and research section. The instrumentation would prove beneficial throughout the chemistry program curricula. The plan described the objectives, provided evidence of impacts, and suggested measureable outcomes for this project. The panel, however, did not agree that the potential loss of ACS accreditation should be the primary rationale for obtaining the spectrophotometer. The need delineated throughout the proposal and use of the instrumentation and low temperature freezer as fundamental tools for teaching basic chemical phenomena and training in the requisite skills of chemistry for the student population should have been the primary rationales. The reviewers noted that the PI has developed a number of collaborations internally and externally that should provide additional opportunities for the PI, the Department and especially the students at UL Lafayette.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 032CHE-11

INSTITUTION: University of Louisiana at Monroe

PRINCIPAL INVESTIGATOR: Khalid El Sayed

TITLE OF PROPOSAL: A Documentation System for Enhancement of ULM  
Medicinal Chemistry Research

## 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 7 (For S/E)  
or (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 4 (of 5 points)  
B.2 12 (of 18 points)  
B.3 14 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 4 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

69
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$20,240  
RECOMMENDATIONS: Recommended Amount: \$0

The panel does not recommend funding this project in its current form. Although it is well written, the proposal's enhancement plan did not provide clear evidence regarding the applicability of the acquisition to the research program. Likewise, the applicant failed to adequately provide clear evidence of how the acquisition would be used to support and its overall impact on research activities in lieu of the excellent research instrumentation currently available. This vital link, if it had been described in detail, would have greatly improved the proposal.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 033CHE-11

INSTITUTION: University of Louisiana at Monroe

PRINCIPAL INVESTIGATOR: Khalid El Sayed

TITLE OF PROPOSAL: Ultra-Performance Liquid Chromatography for the Enhancement of Analytical Capability of ULM College of Pharmacy

## 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 6 (For S/E)  
or (of 10 points)  
E.2b \_\_\_\_\_ (For NS/NE)

## B. The Enhancement Plan

(Total of 56 Points)

B.1 4 (of 5 points)  
B.2 11 (of 18 points)  
B.3 12 (of 20 points)  
B.4 3 (of 5 points)  
B.5 1 (of 2 points)  
B.6 3 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

63
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$53,620

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 is not recommended for funding as it is currently written. The panel acknowledges that the project has great potential, but the proposal failed to provide a clear rationale regarding how this acquisition would impact the research program. The faculty and Department involved in this project have access to an amazing array of equipment but they did not provide a clear description of how the "hyphenated" techniques of UPLC-NMR and UPLC-MS/MS would be carried out. The critical failure to establish a clear rationale with equipment design detracted immensely from a relatively strong proposal.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 034CHE-11

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Pierre Ferdinand Poudeu

TITLE OF PROPOSAL: Acquisition of a Spark Plasma Sintering System for Nanocomposite Research and Education

## 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 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 4 (of 5 points)  
B.2 17 (of 18 points)  
B.3 17 (of 20 points)  
B.4 3 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

86
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$307,042  
RECOMMENDATIONS: Recommended Amount: \$293,641

This proposal is recommended for partial funding of \$293,641. The team at the University of New Orleans requests funds for a Spark Plasma Sintering device for preparing materials for the nanocomposites materials science program. The panel found the project to be of high merit and the equipment requested essential for the program as described. All aspects of the project--rationale, impact, enhancement plan--were well described. The acquisition of this technology will provide UNO researchers a unique opportunity to forge ahead in the area of nanocomposites materials synthesis, fabrication and characterization, and ultimately the application and use of the materials. The proposal provided the necessary benchmarks by which to judge the outcomes of this project. Given the research described and the collaborations envisioned, this project should prove to be a wise investment in promoting research in the field of materials, especially nanocomposites. The panel recommends that the partial funding be allocated at the discretion of the PI but suggests purchasing only some of the consumables needed for the project's initial startup.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 035CHE-11

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Anantha Sankaranarayanan

TITLE OF PROPOSAL: Microelectrode Array (MEA) System in Drug Design and  
Development

## A. The Current Situation

(Total of 10 Points)

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

## C. Equipment

(Total of 10 Points)

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

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

(Total of 12 Points)

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

## B. The Enhancement Plan

(Total of 56 Points)

B.1 \_\_\_\_\_ (of 5 points)  
B.2 \_\_\_\_\_ (of 18 points)  
B.3 \_\_\_\_\_ (of 20 points)  
B.4 \_\_\_\_\_ (of 5 points)  
B.5 \_\_\_\_\_ (of 2 points)  
B.6 \_\_\_\_\_ (of 6 points)  
B.7 Yes \_\_\_\_\_ No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 \_\_\_\_\_ (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes \_\_\_\_\_ No \_\_\_\_\_

G. Total Score: 

no score
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$61,959  
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.)

The panel did not rank this proposal since its primary subject matter is not sufficiently related to chemistry. However, the consensus of the panel is that this proposal has merit and should be submitted when Health and Medical Sciences is eligible for potential support. The drug testing research program would benefit from the addition of this instrumentation, but only in the drug testing response phase and not directly in the drug design and synthesis work. The group should also consider submitting a proposal to NIH based on the research touted and the drug viability potential.

# RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 036CHE-11

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Matthew Tarr

TITLE OF PROPOSAL: Multidisciplinary Facility for Nanoparticle Size and Zeta Potential Characterization: Dynamic Light Scattering Instrument

## 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 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 5 (of 5 points)  
B.2 16 (of 18 points)  
B.3 18 (of 20 points)  
B.4 5 (of 5 points)  
B.5 2 (of 2 points)  
B.6 5 (of 6 points)  
B.7 Yes x No \_\_\_\_\_

## D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

## F. Previous Support Fund Awards

(No Points Assigned)

F.1 Yes x No \_\_\_\_\_

G. Total Score: 

89
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 (of 100 points)

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

SPECIFIC BUDGETARY Requested Amount: \$45,000  
RECOMMENDATIONS: Recommended Amount: \$45,000

## COMMENTS:

The PI from UNO wishes to acquire a dynamic light scattering instrument to facilitate nanomaterial characterization, research and teaching. This proposal is very well written and describes the activities that address the project's goals and objectives. The enhancement plan clearly delineates how the stated objectives--research productivity, acquisition of federal and private sector funding, and teaching and training--will be carried out and the benchmarks by which to measure success of the proposed activities. The chemistry associated with each project is clearly discussed and the future potential addressed. The utilization of the instrumentation to enhance the projects outlined is also very clearly stated. In the unanimous opinion of the panel, this proposal is excellent, with very little or no significant detractors. The proposal is recommended for full funding.



## **APPENDIX A**

### **SUMMARY OF PROPOSALS SUBMITTED**

Proposals Submitted to the Traditional Enhancement Program - Chemistry  
for the FY 2010-11 Review Cycle

Proposal Number	PI Name	Institution	Duration (Years)	Equipment/ Non Equipment	New/ Continuation	Project Title	Amount Requested		
							Year 1	Year 2	Total
001CHE-11	Blakeney, Ernest	Centenary College	1	E	N	Enhanced Capabilities in NMR Spectroscopy at Centenary College	\$213,863.00	\$0.00	\$213,863.00
002CHE-11	King, Joan	Louisiana State University And A&M College - Agricultural Center	1	E	N	Enhancing the Food Science Carbohydrate Laboratory	\$113,362.00	\$0.00	\$113,362.00
003CHE-11	Sabliov, Cristina	Louisiana State University And A&M College - Agricultural Center	1	E	N	Acquisition of characterization and processing equipment for nanotechnology and bioenergy applications	\$196,235.00	\$0.00	\$196,235.00
004CHE-11	Wu, Qinglin	Louisiana State University And A&M College - Agricultural Center	1	E	N	Advanced Quartz Crystal Microbalance with Dissipation (QCM-D) Monitoring for Surface Chemistry Research and Development	\$171,390.00	\$0.00	\$171,390.00
005CHE-11	Chan, Julia	Louisiana State University And A&M College - Baton Rouge	1	E	N	Enhancement of the LSU Chemistry X-ray Crystallography Facility	\$245,610.00	\$0.00	\$245,610.00
006CHE-11	Elseifi, Mostafa	Louisiana State University And A&M College - Baton Rouge	1	E	N	Acquisition of an Advanced Rheometer to Support Teaching and Research in the Use of Bio-Wastes in Construction Applications	\$79,705.00	\$0.00	\$79,705.00
007CHE-11	Murray, Kermit	Louisiana State University And A&M College - Baton Rouge	1	E	N	Nanoflow Liquid Chromatography System for Macromolecular Analysis	\$106,119.00	\$0.00	\$106,119.00
008CHE-11	Nesterov, Evgueni	Louisiana State University And A&M College - Baton Rouge	1	E	N	Shared Facilities for Thin-Film Materials and Devices Fabrication and Characterization: Vacuum Deposition System and Near-Infrared Spectrometer	\$177,704.00	\$0.00	\$177,704.00
009CHE-11	Roy, Amitava	Louisiana State University And A&M College - Baton Rouge	1	E	N	Synchrotron Small Angle X-Ray Scattering	\$40,000.00	\$0.00	\$40,000.00
010CHE-11	Soper, Steven	Louisiana State University And A&M College - Baton Rouge	1	E	N	Enhancement of Lithography-Based Processing Tools for Lab-on-a-Chip Devices in Chemistry and Biology	\$226,455.00	\$0.00	\$226,455.00
011CHE-11	Stanley, George	Louisiana State University And A&M College - Baton Rouge	1	E	N	600 MHz NMR for Chemistry & Biological Chemistry Research	\$301,500.00	\$0.00	\$301,500.00

Proposal Number	PI Name	Institution	Duration (Years)	Equipment/ Non Equipment	New/ Continuation	Project Title	Amount Requested		
							Year 1	Year 2	Total
012CHE-11	Zhang, Donghui	Louisiana State University And A&M College - Baton Rouge	1	E	N	Acquisition of Shared, Multi-User Instrumentation Resources: A Suite of Tools for Chemical and Materials Characterizations	\$297,000.00	\$0.00	\$297,000.00
013CHE-11	Salvatore, Brian	Louisiana State University And A&M College - Shreveport	1	E	N	Enhancement of CHEMical Synthesis Laboratory Facilities at LSUS	\$127,581.00	\$0.00	\$127,581.00
014CHE-11	Cox, Marilyn	Louisiana Tech University	1	E	N	NMR Spectrometer for Undergraduate Organic Chemistry Labs	\$100,000.00	\$0.00	\$100,000.00
015CHE-11	Eklund, Sven	Louisiana Tech University	1	E	N	Industry Experience for Undergraduates Using Raman Spectroscopy	\$76,287.00	\$0.00	\$76,287.00
016CHE-11	Ramachandran, Bala	Louisiana Tech University	1	E	N	Shared Memory Computational Infrastructure for Computational Chemistry and Materials Science Education	\$68,599.00	\$0.00	\$68,599.00
017CHE-11	Koplitz, Lynn	Loyola University New Orleans	1	E	N	Multiphase Analysis and Solid Structure Determination by Powder X-Ray Diffraction	\$90,648.00	\$0.00	\$90,648.00
018CHE-11	Spence, Thomas	Loyola University New Orleans	1	E	N	Liquid Chromatograph/Mass Spectrometer to Support Collaborative Industrial Research at Loyola University	\$342,811.00	\$0.00	\$342,811.00
019CHE-11	Darbeau, Ron	McNeese State University	2	E	N	Acquisition of a 300 MHz Nuclear Magnetic Resonance Spectrometer for Instruction and Research	\$218,200.00	\$0.00	\$218,200.00
020CHE-11	Sneddon, Joseph	McNeese State University	1	E	N	INCORPORATION OF MICROWAVE TECHNOLOGY INTO THE UNDERGRADUATE ANALYTICAL AND ORGANIC CHEMISTRY LABORATORIES	\$25,425.00	\$0.00	\$25,425.00
021CHE-11	Baker, Ronald	Nicholls State University	1	E	N	Acquisition of an FTIR Spectrometer for Chemistry Instruction	\$22,500.00	\$0.00	\$22,500.00
022CHE-11	Boopathy, Raj	Nicholls State University	1	E	N	Upgrading Chemistry Instructional Equipment in the Environmental Chemistry Laboratory	\$75,858.00	\$0.00	\$75,858.00
023CHE-11	Bezoari, Massimo	Northwestern State University	1	E	N	Acquisition of Spectrophotometric Instrumentation for Undergraduate Science Education and Research	\$60,798.00	\$0.00	\$60,798.00
024CHE-11	Waddell, Stephen	Nunez Community College	1	E	N	Enhancing Chemistry in the Community College	\$164,711.00	\$0.00	\$164,711.00
025CHE-11	Burton, Sylvester	Southern University and A&M College at Baton Rouge	1	E	N	Using Technology to Enhance the Conceptual Understanding of Undergraduate Chemistry	\$49,716.00	\$0.00	\$49,716.00
026CHE-11	Walker, Edwin	Southern University and A&M College at Baton Rouge	2	E	N	The Enhancement of Raman capabilities in the Chemical Sciences for Research and Teaching at Southern University	\$146,229.00	\$0.00	\$146,229.00

Proposal Number	PI Name	Institution	Duration (Years)	Equipment/ Non Equipment	New/ Continuation	Project Title	Amount Requested		
							Year 1	Year 2	Total
027CHE-11	Mague, Joel	Tulane University	1	E	N	An Increased Sensitivity Detector for the Smart APEX X-ray Diffractometer	\$89,500.00	\$0.00	\$89,500.00
028CHE-11	Rubtsov, Igor	Tulane University	1	E	N	Acquisition of a Laser System for State-of-the-Art Structural Studies	\$176,730.00	\$0.00	\$176,730.00
029CHE-11	Misra, R. Devesh	University of Louisiana at Lafayette	1	E	N	Thermal Analysis System to Enhance Polymer Science Teaching and Research	\$167,675.00	\$0.00	\$167,675.00
030CHE-11	Perkins, Richard	University of Louisiana at Lafayette	1	E	N	Potentiostat/galvanostat for research and teaching	\$12,947.00	\$0.00	\$12,947.00
031CHE-11	Xu, Wu	University of Louisiana at Lafayette	1	E	N	Enhancement of Spectroscopy and Macromolecule Characterization Techniques in Chemistry Laboratories at University of Louisiana at Lafayette	\$38,261.00	\$0.00	\$38,261.00
032CHE-11	El Sayed, Khalid	University of Louisiana at Monroe	1	E	N	A Documentation System for Enhancement of ULM Medicinal Chemistry Research	\$20,240.00	\$0.00	\$20,240.00
033CHE-11	El Sayed, Khalid	University of Louisiana at Monroe	1	E	N	Ultra-Performance Liquid Chromatography for the Enhancement of Analytical Capability of ULM College of Pharmacy	\$53,620.00	\$0.00	\$53,620.00
034CHE-11	Poudeu, Pierre Ferdinand	University of New Orleans	1	E	N	Acquisition of a Spark Plasma Sintering System for Nanocomposite Research and Education	\$307,042.00	\$0.00	\$307,042.00
035CHE-11	Sankaranarayanan, Anantha	University of New Orleans	1	E	N	Microelectrode Array (MEA) System in Drug Design and Development	\$61,959.00	\$0.00	\$61,959.00
036CHE-11	Tarr, Matthew	University of New Orleans	1	E	N	Multidisciplinary Facility for Nanoparticle Size and Zeta Potential Characterization: Dynamic Light Scattering Instrument	\$45,000.00	\$0.00	\$45,000.00

\* The Enhancement Program RFP restricts requests for 2nd-year funding to no more than \$50,000

Total Number of Proposals submitted	36
Total Money Requested for First Year	\$4,711,280.00
Total Money Requested for Second Year	\$0.00
Total Money Requested	\$4,711,280.00

## **APPENDIX B**

### **Proposal Evaluation Forms**

**Form 1: For Purchase of Instructional and Research Equipment**

**Form 2: For Other Than Equipment Purchases**

BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2010-11

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. Guidelines should not be interpreted to exclude from eligibility departments and/or units engaged solely in instruction. Use the white space provided to explain the panel's ratings, especially on items given low scores. Attach additional pages, as necessary.

A. THE CURRENT SITUATION--Total of 10 points

- YES \_\_\_\_\_ NO \_\_\_\_\_ A.1 Has the applicant adequately described the institution and unit(s)/department(s) that will benefit from the proposed 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) or unit(s)?
- \_\_\_\_\_ of 5 pts. A.3 To what extent will the project complement and improve upon existing resources of the department(s) or unit(s)?

COMMENTS:

B. THE ENHANCEMENT PLAN--Total of 56 points

- \_\_\_\_\_ of 5 pts. B.1 Are the goals and objectives clearly stated? Can the objectives be completed within the timeframe detailed in the proposal?
- \_\_\_\_\_ of 18 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, a schedule of activities with benchmarks to be accomplished, and a description detailing how each objective will be evaluated?
- \_\_\_\_\_ of 20 pts. B.3 To what extent will the proposed project catapult the department(s) or 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 quality of curricular offerings and instructional methods within the affected department(s) or unit(s)? Appropriate to current thinking in the specific field(s) or discipline(s) of the proposed project, is reform of undergraduate education and/or teacher preparation encouraged?
- \_\_\_\_\_ of 2 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 6 pts. B.6 To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogical practices within the context of current thinking on reform of undergraduate education and teacher preparation, specific to field(s) or discipline(s) of the proposed project?
- No Points Given, but this is a required component. B.7 Does the proposal indicate how the Board of Regents or other entity will determine whether or not the project has been a success and the degree to which it has achieved its goals?

Proposal Number: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

COMMENTS:

C. EQUIPMENT--Total of 10 points

- \_\_\_\_\_ of 6 pts.      C.1      To what extent has the proposal established a relationship between the enhancement plan and the items of equipment requested? Is the equipment well-justified? Will it significantly enhance the existing technological capability of the department? Does it reflect current and projected trends in technology?
- \_\_\_\_\_ of 1 pt.      C.2      Has there been a thorough survey of the current equipment inventory and does the proposal plan to make full use of it?
- \_\_\_\_\_ 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?

COMMENTS:

D. FACULTY AND STAFF EXPERTISE--Total of 12 points

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

COMMENTS:

E. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT--Total of 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 university or consortium of universities, federal government agency)?

NOTE TO REVIEWER:      Depending on the discipline of the submitting department or unit, provide rating points for either E.2a OR E.2b:

- \_\_\_\_\_ of 10 pts.      E.2a      For science/engineering proposals only: To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing the economic development of the State of Louisiana?
- E.2b      For non-science/non-engineering proposals only: To what extent will the project contribute to the academic and/or cultural resources of the State of Louisiana?

COMMENTS:

Proposal Number: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

F. PREVIOUS SUPPORT FUND AWARDS--No points assigned

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

COMMENTS:

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 \$ \_\_\_\_\_

COMMENTS:

=====
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: \_\_\_\_\_



**BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2010-11  
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. Guidelines should not be interpreted to exclude from eligibility departments and/or units engaged solely in instruction. Use the white space provided to explain the panel's ratings, especially on items given low scores. Attach additional pages, as necessary.

**A. THE CURRENT SITUATION--Total of 10 points**

- |                 |     |  |
|-----------------|-----|--|
| YES_____NO_____ | A.1 | Has the applicant adequately described the institution and unit(s)/department(s) that will benefit from the proposed 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) or unit(s)?  |
| _____ of 5 pts. | A.3 | To what extent will the project complement and improve upon existing resources of the department(s) or unit(s)?  |

COMMENTS:

**B. THE ENHANCEMENT PLAN--Total of 66 points**

- |                  |     |   |
|------------------|-----|---|
| _____ of 5 pts.  | B.1 | Are the goals and objectives clearly stated?  |
| _____ of 23 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, a schedule of activities with benchmarks to be accomplished, and a description detailing how each objective will be evaluated?   |
| _____ of 25 pts. | B.3 | To what extent will the proposed project catapult the department(s) or 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 quality of curricular offerings and instructional methods within the affected department(s) or unit(s)? Appropriate to current thinking in the specific field(s) or discipline(s) of the proposed project, is reform of undergraduate education and/or teacher preparation encouraged? |
| _____ of 2 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 6 pts.  | B.6 | To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogical practices within the context of current thinking on reform of undergraduate education and teacher preparation, specific to field(s) or discipline(s) of the proposed project?   |

**C. FACULTY AND STAFF EXPERTISE--Total of 12 points**

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

Proposal Number: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

COMMENTS:

D. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT--Total of 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, another university or consortium of universities, federal government agency)?

NOTE TO REVIEWER: Depending on the discipline of the submitting department or unit, provide rating points for either D.2a OR D.2b:

\_\_\_\_\_ of 10 pts. D.2a For science/engineering proposals only: To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing the economic development of the State of Louisiana?

D.2b For non-science/non-engineering proposals only: To what extent will the project contribute to the academic and/or cultural resources of the State of Louisiana?

COMMENTS:

E. 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?

COMMENTS:

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

\_\_\_\_\_ of 100 points

Proposal Number: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

**SPECIFIC BUDGETARY RECOMMENDATIONS**

Requested Amount:\$ \_\_\_\_\_ Recommended Amount:\$ \_\_\_\_\_

COMMENTS:

=====
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: \_\_\_\_\_