Approved by the Regents May 15, 2014

PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Bart Bartlett, assistant professor of chemistry, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of chemistry, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2005	Massachusetts Institute of Technology
B.A.	2000	Washington University

Professional Record:

2008 – present	Assistant Professor, Department of Chemistry, University of Michigan
2005 – 2008	President's Post-doctoral Fellow, University of California, Berkeley

Summary of Evaluations:

Teaching – Professor Bartlett has demonstrated truly exceptional performance as an educator and has received outstanding teaching evaluations from his students. He is able to demystify the language of chemistry for a broad audience by blending historical developments in the field with current frontiers of science in lectures, problem sets, and examination questions. This has been highly effective at capturing the attention of and generating excitement among the broad group of students in introductory chemistry. He has significantly revised the curriculum for undergraduate inorganic chemistry and incorporated extensive applications of inorganic chemistry in solar energy and battery technologies. Professor Bartlett has also been highly active in mentoring undergraduate and graduate students. He has served on multiple graduate student thesis and preliminary committees and as a dedicated research mentor to a large cohort of undergraduate and graduate students. His undergraduate coworkers have co-authored a total of six publications under his supervision. He has received two teaching awards: the Seyhan Ege Junior Faculty Development Award and the LSA Excellence in Education Award.

Research – Professor Bartlett has gained national and international recognition as an expert in the field of inorganic materials chemistry. The goals of this area of research are to elucidate and develop rules to predict the complex relationships between molecular structure and physical properties and then to use this basic understanding to synthesize compositionally complex materials with novel properties. He has published numerous papers in high quality, high-impact journals. He has also presented his research at symposia and other institutions and many of the external letter writers commented on his outstanding skills at conveying the importance of his work. Professor Bartlett has garnered a prestigious National Science Foundation CAREER award along with awards from General Motors and the Department of Energy giving him a well-funded research group ($1./3 million in committed funding).

Recent and Significant Publications:

"Nanocrystals synthesized by carbon templating from solution precursors yield high performance thin film Li-Ion battery electrodes," with X. Hao, *Advanced Energy Materials*, 3, 2013, pp. 753-761.

"Visible light water oxidation using a co-catalyst loaded anatase-structured Ti1–(5x/4)NbxO2–y–δNy compound," with T. M. Breault, et al., *Inorganic Chemistry*, 52, 2013, pp. 9363-9368.

"Electrochemical deposition of and photoelectrochemistry of $CuWO_4$, a promising photoanode for water oxidation," with J. E. Yourey, *Journal of Materials Chemistry*, 21, 2011, pp. 7651-7660.

"A new one-pot hydrothermal synthesis and electrochemical characterization of Li1+xMn2-yO4 spinel structured compounds," with B. J. Liddle and S. M. Collins, *Energy and Environmental Science*, 3, 2010, pp. 1339-1346.

Service – Professor Bartlett has been an outstanding citizen to his department as well as to the college, the university, and the discipline at large. He has made substantial service contributions in graduate student recruiting, graduate admissions, faculty recruiting, seminar coordination, and on the Graduate Committee. A notable contribution has been his service as faculty advisor to the undergraduate American Chemical Society club, where he has helped students to re-invigorate the organization by coordinating events such as an undergraduate research symposium within the department.

External Reviewers:

"I think that many in the chemistry community would agree that for researchers interested in physical chemistry, work that seeks to address satisfying the world's energy needs through environmentally benign processes is one of the most important possible areas of current study. In addition, the specific area of interest of prof. [sic] Bartlett – evaluating new materials for use in such systems – is a particularly important one, and one in which, as far as I can tell, relatively few of the current practitioners in the field work."

Reviewer (B)

"What is impressive with Prof. Bartlett is that he was able to establish a successful research program in both [solar fuel production and li-ion battery] areas within a very short period of time although he did not have any research experience in either of these areas during his Ph.D. and postdoctoral studies. … It is clear that Prof. Bartlett is bringing many fresh ideas to his fields with the main theme of better understanding and utilizing complex oxides. For both projects, he has been very productive and published multiple papers in high impact journals. "

Reviewer (C)

"He is a dynamic, intelligent individual with an excellent lecturing style and is clearly able to interest students in the area. He is also highly attractive to the grant agencies, having accumulated an impressive funding record, something that bodes well for his future career. As a result he has been able to attract a big group of coworkers and publish a substantial number of papers."

Reviewer (D)

"I found his most recent work on 'Li4Tb012 Nanocrystals Synthesized by Carbon Templating from Solution Precursors Yield High Performance Thin Film Li-Ion Battery Electrodes' to be cutting edge materials chemistry. …he is passionate about teaching and loves working with students."

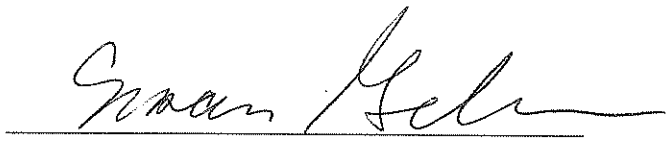
Reviewer (E)
"…[Bartlett's] research reflects a broad and vibrant program spanning several complementary areas of inorganic chemistry, materials science, and energy technology. Prof. Bartlett's successes stem from his detailed and scholarly approach to science. His research is hypothesis driven and soundly grounded in core fundamentals of inorganic chemistry. He is able to apply powerful design principles in creative ways to improve materials performance."

Reviewer (F)
"Prof. Bartlett's funding is far superior to other…faculty at his stage and should be commended. …[he] is an exceptional undergraduate teacher as is clear from his Excellence in Education Award from the College of Literature, Science, and the Arts… He also closely and effectively mentors all of his students in his research laboratory. With respect to teaching and mentoring, Prof. Bartlett is a model PI…"

Reviewer G)
"He is a scholarly and inspiring scientist [of his cohort], who is rapidly becoming a leader in solid state chemistry research, with particular emphasis on new materials for lithium ion batteries and solar energy conversion. … I have observed Bart giving several seminars on his research, including on his independent work at Michigan, and in this regard he is an absolute star. He presents his research in a direct, engaging, and entertaining way that cuts right to the heart of the science. His slides are simple and elegantly composed."

Reviewer (H)
"Based on the quality and impact of his research accomplishments, as well as his outstanding record as a teacher and mentor, I am sure that Bart would be easily promoted and granted tenure at this stage in my department. He is someone I would value as a tenured colleague."

Summary of Recommendation:
Professor Bartlett is gaining both national and international recognition in his research area. He is a dedicated scholar who also excels in teaching and service. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Bart Bartlett be promoted to the rank of associate professor of chemistry, with tenure, College of Literature, Science, and the Arts.



Susan A. Gelman
Heinz Werner Distinguished University Professor,
Professor of Psychology and Interim Dean,
College of Literature, Science, and the Arts

May 2014