PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering

Approved by the Regents
May 20, 2010

Adam J. Matzger, associate professor of macromolecular science and engineering, without tenure, Macromolecular Science and Engineering Program, College of Engineering, is recommended for promotion to professor of macromolecular science and engineering, without tenure, Macromolecular Science and Engineering Program, College of Engineering [also professor of chemistry, with tenure, College of Literature, Science, and the Arts].

Academic Degrees:

Ph.D.	1997	University of California at Berkeley
B.A.	1992	Oberlin College

Professional Record:

2009-present	Professor, Department of Chemistry, University of Michigan
2006-present	Associate Professor, Macromolecular Science and Engineering Program, University of Michigan
2000-2006	Assistant Professor Department of Chemistry and Macromolecular Science and Engineering Program, University of Michigan
1997-2000	Postdoctoral Fellow, California Institute of Technology

Summary of Evaluation:

Teaching: Professor Matzger is an excellent teacher and research mentor to a large cohort of undergraduate and graduate students. He has the versatility to contribute to teaching efforts in organic chemistry and materials chemistry sub-disciplines. He is committed to mentoring undergraduates in his research laboratory and he has engaged numerous students in his program. Undergraduate students are listed on twelve publications from his laboratory. Within the Macromolecular Science and Engineering Program (MACRO), he has mentored two graduate students and has assisted in several student recruiting activities. Many MACRO students have interacted with Professor Matzger through his courses and there is universal acclaim for his efforts in the classroom.

Research: Professor Matzger's field of research is organic materials chemistry, especially solid-state materials, which is at the interface of organic chemistry, materials chemistry, and engineering. The goal of this specialization is to understand and control the structures and properties of organic solids and polymers. His research focuses on two areas: crystallization in two and three dimensions, and synthesis and analysis of novel materials. His research has enormous potential for industrial applications. Professor Matzger provides a unique sensitivity to solid-state structure and materials synthesis that provides many opportunities for collaborations between faculty within the College of Engineering (CoE) and in Chemistry.

Recent and Significant Publications:

"Selection of protein crystal forms facilitated by polymer-induced heteronucleation," with A. L. Grzesiak, *Crystal Growth & Design*, 8, 2008, pp. 347-350.

"Molecular packing and symmetry of two-dimensional crystals," with K. E. Plass and A. L. Grzesiak, *Accounts of Chemical Research*, 40, 2007, pp. 287-293.

"New form discovery for the analgesics flurbiprofen and sulindac facilitated by polymer-induced heteronucleation," with A. L. Grzesiak, *Journal of Pharmaceutical Sciences*, 2007, pp. 2978-2986.

"Porous crystal derived from a tricarboxylate linker with two distinct binding motifs," with A. G. Wong-Foy and O. Lebel, *Journal of the American Chemical Society*, 129, 2007,pp. 15740-15741.

Service: Professor Matzger is an outstanding citizen and colleague. He willingly takes on many departmental administrative tasks. Professor Matzger's service to MACRO includes serving as a member of the Executive Committee, which maintains oversight of the program. Has helped the MACRO program to maintain and improve its computer hardware and software facilities and instrumentation capabilities. In addition, Professor Matzger participated as a member of the Organizing Committee for the 29th Annual Macromolecular Science and Engineering Symposium. This annual event provides an opportunity to hear lectures from a number of eminent scientists working in a particular area of macromolecular science of interest to the community. The topical area that year was Organic Electronics, and Professor Matzger worked with other CoE faculty to put together an outstanding program of speakers.

External Reviews:

Reviewer A: "I consider Matzger's work in two-dimensional polymorphism to be at the head of the field. … His progress since his tenure review a few years ago is nothing short of phenomenal. …I believe, based on his intellectual productivity and creativity as well as the depth and volume of his contributions, that Professor Matzger is a rising leader of his scientific generation. The case for promotion to Professor from Associate Professor is, in my opinion, a 'slam dunk'!"

Reviewer B: "In all of his research work, I am impressed by the careful attention to detail, the design of the research, and the elegant description of his results in his publications. His papers are a pleasure to read, models of clarity and conciseness. …promotion to full professor at the University of Michigan is clearly warranted."

Reviewer C: "It is clear from his productivity, scientific accomplishments, and funding levels, that his career is flourishing and therefore this promotion is warranted. … Dr. Matzger's research program is unique in the world. He has established himself as the leader in dissecting, manipulating, and understanding polymorphism in crystallization. … His science is now having a long-range impact."

Reviewer D: "Adam has established an outstanding program in material design. The overall goal of his program is understanding how molecules fit together in the solid state. His work on controlling crystals… …is both creative, clever and practical. … Matzger has developed a mature program which has a unique place in organic chemistry. He passed all the hurdles that are expected for the proposed promotion."

Reviewer E: "His work is elegant and intellectually sophisticated. It is also original. … The field of porous crystalline coordination polymers is an enormously crowded and competitive one.

In the United States, Prof. Matzger could reasonably be viewed as one of the top 4 or 5 researchers."

Reviewer F: "...the candidate's record since his promotion to associate professor in 2006 fully justifies promotion in 2009 to the next faculty rank... All told, he published 26 scientific papers since his promotion... This is a laudable record for any senior scientist in our field, even for a period of six years, and he compiled it in three. ... The quality of the science is first rate, and all of the experimental work is well documented."

Reviewer G: "Dr. Matzger's work is of high quality and is published in the leading journals. He is well known in the international community and his work is well respected. ...[I] would rate Dr. Matzger's record among the best I have seen in recent years."

Reviewer H: "Matzger's work at Michigan has been seminal and important. ... Matzger's very impressive work has, since then [promotion to associate professor], even taken off on a still higher trajectory. ... Matzger's work is highly recognized for its scholarship, depth and creativity."

Summary of Recommendation:
Professor Matzger is an outstanding researcher, an effective and dedicated teacher, and conscientious citizen. It is with the support of the College of Engineering Executive Committee that I recommend Adam J. Matzger for promotion to professor of macromolecular science and engineering, without tenure, Macromolecular Science and Engineering Program, College of Engineering.

David C. Munson, Jr.
Robert J. Vlasic Dean of Engineering
College of Engineering

Terrence J. McDonald
Arthur F. Thurnau Professor
Professor of History and Dean
College of Literature, Science, and the Arts

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