



GEORGETOWN UNIVERSITY

*Department of Chemistry*

15 November 2004

Biocomplexity Faculty Search Committee  
c/o Prof. Rob de Ruyter van Steveninck  
Department of Physics  
Indiana University  
Swain Hall West 117  
Bloomington, IN 47405-7105

Dear Prof. de Ruyter van Steveninck,

I am extremely pleased and honored to write this strong letter of recommendation in support of Dr. Nathan A. Oyler's application for a faculty position in your department. I spent a year in Dr. Robert Tycko's laboratory at the National Institutes of Health. It was during this time that I had the opportunity to collaborate and work with Nathan, who is currently a postdoctoral fellow in Tycko's laboratory.

Nathan's expertise in solid state nuclear magnetic resonance (NMR) is truly impressive. Equally extraordinary is Nathan's ability to learn and master a variety of skills and experimental methods outside the field of NMR spectroscopy. For example, it did not take much time for Nathan to learn peptide synthesis and atomic force microscopy. Nathan also brought into Tycko's laboratory his proficiency in C++ language and in performing simulations of solid state NMR experiments. Nathan's knowledge of pulse sequences is extremely thorough. He is able to modify a pulse sequence at a moment's notice, in order to gain more information from a given experiment. His work on determining orientational constraints for  $\beta$ -amyloid fibrils is one of the very best projects I have seen in my life.

When I joined Tycko's group, I had no experience in solid state NMR techniques. I had to rely fully on Tycko's postdoctoral fellows for training and guidance. Nathan was extremely helpful in assisting me with my work on peptides and antimalarial drugs. I learned the basics of solid state NMR work plus a variety of spectral editing techniques from Nathan. Not only did Nathan help me with setting up the spectrometers and performing the experiments, he also provided extremely enlightening comments and suggestions regarding the work that I was doing. During the year that I worked in Tycko's laboratory, I was likewise able to observe the dynamics of the Tycko research group. Although Nathan focuses and concentrates on the projects specifically assigned to him, he is definitely an excellent team player. He attends to the responsibilities outside his specific project. There are weekly group meetings and Nathan significantly contributes in the discussions involving work of other people in the research group, oftentimes, offering helpful advice and suggestions.

Nathan and I would often have lunch together and during these meals, I truly enjoy his company and the highly intellectual conversations that we shared. Nathan has a very inquisitive yet extremely disciplined mind. Based on how he approaches his work and the research projects of other people, I see a mastery of physical chemistry and an extensive familiarity with a wide

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variety of experimental methods. Debates and discussions with Nathan were remarkably pleasing and productive. I learned a lot from him as he explains his theories and analysis of various topics in research. Nathan is also well-rounded and on other occasions, we discuss the arts, literature, politics and important social issues. I am extremely confident that Nathan would serve as an excellent mentor for undergraduate and graduate students. He has an excellent personality and a wisdom that can inspire young minds. I really enjoyed the sabbatical leave that I spent in Tycko's laboratory and Dr. Nathan A. Oyler's presence in the group was one of the reasons why my leave was a success.

I highly recommend Dr. Nathan A. Oyler for the position that he is applying. I am confident that he would be among your best candidates and I hope you would give his application your kind consideration and attention. Nathan has my highest recommendation. If I could be of further assistance please do not hesitate to either call (202 6870670) or email ([dediosa@georgetown.edu](mailto:dediosa@georgetown.edu)) me. Thank you for your time and attention.

Sincerely,



Angel C. de Dios  
Associate Professor and  
Director of Undergraduate Studies