



**Judd A. and Marjorie Weinberg**  
College of Arts and Sciences  
Northwestern University

**Department of Chemistry**  
2145 Sheridan Road  
Evanston, Illinois 60208-3113

**George C. Schatz**  
Charles E. and Emma H. Morrison  
Professor of Chemistry

schatz@chem.northwestern.edu  
Phone 847-491-5657  
Fax 847-491-7713



**NORTHWESTERN**  
UNIVERSITY

December 22, 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:

This letter is in support of the application of Dr. Sung Yong Park for the position of Assistant Professor in the Department of Physics at your institution. Sung Yong joined my group in July as a postdoc, after having spent an earlier postdoc with Prof. Stroud at Ohio State.

Let me begin by saying that Sung Yong is an extremely capable scientist who came to my group already loaded with ideas for interesting science that he could do. He has been quick to get involved in exciting collaborations with two of my experimental colleagues, Chad Mirkin and SonBinh Nguyen, so even though we haven't written any papers together yet, I can easily see that we will soon write several.

I got to know Sung Yong the hard way, which is that he coauthored some papers with David Stroud that presented an alternative theory to one that I had worked out concerning the melting of DNA-linked gold nanoparticle aggregates. I had never met him when these papers first appeared, so it was much to my surprise that he came to visit me last winter, wanting to tell me about his work. Needless to say this was a difficult start! However I eventually warmed up to him, as I realized that the theory he developed was one limiting case of the behavior of the gold aggregates where kinetics dominates the structural properties, while my theory was appropriate when thermodynamics controls their structure. After I realized that he had brilliantly developed an important direction for this research, I decided to hire him into my group, with the idea that we might benefit from his important insights. I have not been disappointed. He is a talented physicist, who is not at all afraid of the chemistry and biology that we deal with daily in our studies of metal nanoparticle biological sensors. As a result I have quickly let him take over my DNA-gold aggregate research, and recently I asked him to coorganize with me a symposium at a meeting on nanoscience that takes place next spring.

Sung Yong is very broad, and that has proven useful for the projects that he has been doing here. As you can tell from his proposal, he wants to do studies of plasmonics, statistical modeling and molecular dynamics calculations in his further work. These are

---

the basic tools needed for modeling nanoscale phenomena, and it is easy to see that he has the talents needed to become an important player in this area.

I am therefore pleased to recommend Sung Yong for a faculty position. He is truly gifted, and he has the right motivation and drive to make exciting progress in nanoscience research.

Sincerely,

A handwritten signature in black ink that reads "George Schatz cc". The signature is written in a cursive, flowing style.

George Schatz