JOURNAL INTERVIEWS - 2009

October 2009

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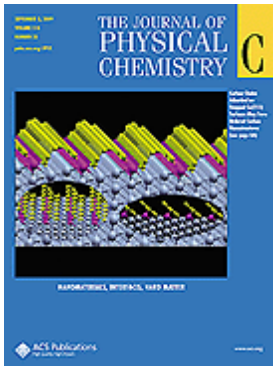

Journal of Physical Chemistry C

Featured Journal Interview

For the past year, the Journal of Physical Chemistry C *has claimed the title of Rising Star among journals in the field of Physics, meaning that at each bimonthly update, this journal has had the highest percent increase in total citations. The journal's current record in* Essential Science Indicators℠ *from Thomson Reuters includes 6,670 papers cited a total of 20,942 times up until June 30, 2009.*

The Journal of Physical Chemistry C *has been in print since January 2007, and is published by the American Chemical Society.*

In the interview below, ScienceWatch.com *talks with Editor-in-Chief Professor George Schatz about the journal's history and citation record.*

SW: When and under what circumstances was the *Journal of Physical Chemistry C* founded?

The dramatic growth of physical chemistry at the end of the 20th century led to the split of the *Journal of Physical Chemistry* into parts A and B in 1997. Since 1997, several areas of physical chemistry have emerged and have been experiencing significant growth, including studies on nanomaterials and nanostructures, optical and electronic devices, and energy conversion and storage. The American Chemical Society Publications staff and editors of the journal recognized that these emerging areas were important for the physical chemistry community, and the *Journal of Physical Chemistry C* was created to give researchers in these emerging areas a highly reputable forum in which to publish their work.

SW: Did you expect the *Journal of Physical Chemistry C* to become highly cited, or is this surprising to you?

It was certainly our hope that the journal would do well, and we are obviously very pleased by its success thus far. A new journal always takes some time to get established and known within research communities, so the biggest surprise was that the journal seemed to become recognized as one of the preferred places to publish in these new and emerging areas and communities so quickly. The journal only published its first issue in January 2007, but we published over 3,000 articles in 2008. The success of the *Journal of Physical Chemistry C* demonstrates that there is still a desire for authors to publish in a multidisciplinary, multi-scoped journal.

SW: How would you account for the increased citation rate of the *Journal of Physical Chemistry C*?

The large numbers of citations are likely the result of: (1) the rigorous and selective editorial process of articles in which every article submitted is handled by one of 30 editors who are also professors and active researchers and (2) the exciting and growing nature of the topics chosen for the *Journal of Physical Chemistry C*. This combination has helped us to attract and publish high-quality articles which authors and readers have found to be immediately useful and relevant.

"Perhaps one of the biggest contributions of the journal is the drawing together of many different types of researchers to address scientific challenges of interest to the physical chemistry community."

SW: Was there a change in policy or editorial direction that might account for this?

One decision that may have affected the growth in citations was the choice of topics to be published in *Journal of Physical Chemistry C*. The distribution of topics in *Journal of Physical Chemistry A, B,* and *C* was based on several considerations, including what made sense scientifically and balanced out the three journals. Some topics, such as nanomaterials and catalysis, were largely transferred from the *Journal of Physical Chemistry B*. However, some new topics were added, including energy research and electron transport processes, reflecting growth of these subdisciplines of physical chemistry.

SW: What historical factors have contributed to the success of the *Journal of Physical Chemistry C*?

As I mentioned earlier, the *Journal of Physical Chemistry C* was split from *Journal of Physical Chemistry A* and *B.* The *Journal of Physical Chemistry* has a long history, publishing its first issue in 1896, and finally growing so much that it needed to be reorganized into two separate parts in 1997. Throughout the journal's history, it has continued to evolve as the field of physical chemistry progressed, and the journal has become well known in the process for keeping up with the changing field.

I think that the history and established reputation of excellence of *Journal of Physical Chemistry A* and *B* certainly has helped *Journal of Physical Chemistry C* achieve success so quickly. In addition, the rigorous and efficient editorial and publication processes established with the *Journal of Physical Chemistry A* and *B* forged the way for part *C* to achieve rapid success.

SW: Have there been specific developments in the fields served by the *Journal of Physical Chemistry C* that may have contributed?

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The *Journal of Physical Chemistry C* covers several areas that have seen tremendous growth in recent years. One of the largest areas is nanoparticle research, which involves structural, chemical, magnetic, electrical, and optical properties of nanoparticles and related nanostructures, as well as nanoparticle interactions with surfaces and biomolecules. Other major areas include catalysis and surface science, energy storage, and various types of solar cells. The ongoing growth of these areas is a major cause for the growth in citations for the journal.

SW: What, in your view, is this journal's main significance or contribution in the field of Physics?

The *Journal of Physical Chemistry C* has become a multidisciplinary journal. Authors contributing to the journal are physical chemists, physicists, biophysicists, chemical engineers, and surface scientists. The research topics within *Journal of Physical Chemistry C* involve all of these different types of researchers. Perhaps one of the biggest contributions of the journal is the drawing together of many different types of researchers to address scientific challenges of interest to the physical chemistry community. The emphasis on physical chemistry makes the *Journal of Physical Chemistry C* distinct from a number of physics journals.

SW: How do you see your field(s) evolving in the next few years?

I would expect that we will see continued growth in all the subdisciplines represented in the *Journal of Physical Chemistry C*. Energy research received a big boost in funding in many countries recently, so this field of research should really take off. The nanoparticles/catalysis/surface-science fields continue to evolve rapidly due to applications in sensing, electronics and photonics, new materials, conventional and nonconventional fuels, etc. We even see manuscripts related to food science and cosmetics, but of course with a focus on physical chemistry.

SW: What role do you see for your journal?

The *Journal of Physical Chemistry* will continue to keep up with the pulse of physical chemistry and reorganize when there are significant changes to the field and/or community the journal serves. The *Journal of Physical Chemistry C,* in particular, will play a key role in dissemination of important research results in the new areas I outlined above. With the excellent group of editors and staff working on the journal, I am confident that it will continue to attract and publish high-quality, cutting-edge research in all areas of physical chemistry.

Journal of Physical Chemistry C
George Schatz, Editor-in-Chief
American Chemical Society, Publishers

***Journal of Physical Chemistry C's* current most-cited paper in *Essential Science Indicators*, with 157 cites:**

Kamat PV, "Meeting the clean energy demand: Nanostructure architectures for solar energy conversion," *J. Phys. Chem. C* 111 (7): 2834-60, 22 February 2007. Source: *Essential Science Indicators* from Thomson Reuters.

KEYWORDS: PHYSICAL CHEMISTRY, NANOMATERIALS, NANOSTRUCTURES, OPTICS, ELECTRONICS, ENERGY CONVERSION, ENERGY STORAGE, CATALYSIS, ENERGY RESEARCH, SURFACE SCIENCE, ELECTRON TRANSPORT PROCESSES, EDITORIAL SELECTION, PUBLICATION PROCESS, JOURNAL HISTORY, MULTIDISCIPLINARY JOURNAL.

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