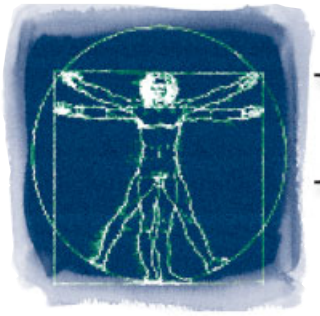
ADVANCED MATERIALS





# Interview

## In Profile: Andrew R. Barron. Professor of Chemistry and Materials Science, Rice University

The two most influential people leading Professor Barron to a career in science were his secondary school chemistry teacher, Mr. Roberts, and his Ph.D. supervisor, Sir Geoffrey Wilkinson. Barron remarks, "Mr. Roberts, who had an uncanny resemblance to John Dalton (and even had a picture of him in the classroom), was a hands-on chemist. Class was never boring and the smells (mostly bad) and explosions (not all intended) were just the thing to get someone interested in science. Sir Geoffrey Wilkinson taught inorganic chemistry to the second year students at Imperial College (London) with an interest and pride in the subject that made me want to stay at Imperial and conduct research in his group. It was at his suggestion I moved to the States and because of him that I got an interview at Harvard for a faculty position."

## The Professional Side

***What is your earliest recollection of science?***
Science classes at Infants School. I would have been about 6 years old. It was more towards "natural history" than physical science.

***What do you love about your job?***
As a scientist, I enjoy the ever changing challenges and continual understanding of my field. As an academic, the interaction with graduate students and undergraduates keeps me in a state of continual learning. The day to day discoveries that my research group makes and watching them move on in their own carriers are all great facets. It is also pleasant to be around people who never change age (as I get older).

***What characteristics do you see as necessary for your position?***
You should never be satisfied with anything you do and therefore are always trying to go one step further. A sense of humor is required in dealing with so many different people during your work, and the ups and downs of research.

***What inspires and motivates you?***
My students. I see no point in being motivated by competition with colleagues, or the desire to publish thousands of papers, or win every award. Gaining an understanding of your field is motivation enough. Most importantly, I believe research is fun, and if it ever stops being that it is time to stop and grow roses or something.

***Where do you look for ideas?***
I honestly don't know. Much of research involves happenstance. The realization of what is in front of you is when good ideas arise.

***Which trends in the scientific community are you pleased about?***
The interactions between science and engineering across fields such as nanotechnology and that the stigma imposed by some academics on "applied science" has almost disappeared.

***Are there any such trends that concern you?***
There has become a political element to science, especially in the United States. Local and Federal policies are often decided not on scientific knowledge, but upon the size of financial donations. There is also a disturbing trend of allowing religion to dictate what science should be taught to school children.

***What is your most satisfying achievement?***
I would hope I haven't had it yet.

***What scientific discovery would you like to have been responsible for?***
Charles Darwin's theory of evolution as described in "On the Origin of Species" and "The Descent of Man".

## The Personal Side

***How would your family and friends describe you?***
You would have to ask them. People are notoriously bad at judging themselves.

***How do you spend your free time?***
I collect, restore, and race Lotus cars.

***Where, in the world, is the best place you've been?***
London, especially on a summer evening beside the Thames as the sun goes down.

***What are you reading at the moment, and what is your book tip?***
*Mostly Harmless* by Douglas Adams. For book tips I would say anything by Ian Fleming, Reginald Hill, or Ben Elton.

***What music do you listen to?***
Marillion, Iron Maiden, AC/DC, and Pink Floyd.

***The last film you saw?***
Gosford Park.

***If you had not become a scientist, what would you have become?***
Something in the theater or a lighting designer for concerts.

***Who is your most admired person/scientist?***
Winston Churchill.

***What do you value in your friends?***
They are a group of people who understand the pressures of work, but enjoy the relaxation between times.

***What is your most important personal goal for the future?***
To race at the 24 Hours of LeMans.

As Prof. Barron hits 40, he has decided to move into a new area of research. He is interested in how nature grows inorganic materials with precise structures, at ambient temperatures, despite the presence of significant impurities. In contrast, traditional synthetic approaches to similar materials require high temperatures and high purity of starting materials, but can be performed on a large scale with high growth rates. The combination of the best attributes of both approaches would revolutionize materials synthesis.

**1986** Ph.D. and D.I.C., Imperial College of Science and Technology

**1986–1987** Post-doctoral Research Associate at the University of Texas, Austin

**1987–1991** Assistant Professor, Harvard University

**1991–1995** Associate Professor of Chemistry, Harvard University

**1995–2000** Professor of Chemistry and Materials Science, Rice University

**Since 2000** Charles W. Duncan, Jr.-Welch Chair of Chemistry and Professor of Materials Science, Rice University

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