

## The Magnetism Award of the IUPAP Commission on Magnetism

This new award was presented at the Triennial International Conference on Magnetism (ICM '91). The award is made in recognition of outstanding contributions to fundamental and applied magnetism over the previous five years.

All members of the magnetism community were invited to nominate candidates for this award. The Award Committee was appointed by the IUPAP Commission on Magnetism. The members of the Committee for the 1991 Award were:

J. Friedel	R.M. White
T. Moriya	T.J. Hicks
S.V. Vonsovsky	

The winner of the Magnetism Award was Professor Arthur J. Freeman of Northwestern University, Evanston, Illinois. Professor S.V. Vonsovsky, on behalf of the IUPAP Commission on Magnetism, presented Professor Freeman with a cash award as well as a model consisting of a plexiglass hysteresis loop mounted on a piece of red-streaked magnetite from Australia. It bore the text "Arthur J. Freeman, ICM Award 1991, Awarded by the IUPAP Magnetism Commission". The model was designed, executed and donated by Elsevier Science Publishers, to whom the Magnetism Commission is most grateful.

*Citation of Arthur J. Freeman for the Magnetism Award given by Professor S.V. Vonsovsky*

"It is a great honour for me that the ICM '91 Committee for the IUPAP Award in Magnetism have charged me, here in Edinburgh, to present the first laureate of this prize, Professor A.J. Freeman, with the award that he has deserved.

Professor Freeman is one of the eminent physicists of the USA, who is conducting, very actively and successfully, creative scientific work in the field of the physics of magnetic phenomena. He is author and coauthor of many monographs on different problems of magnetism, and has delivered a tremendous number of lectures at conferences and symposia, national and international.

This prize is awarded to Professor Freeman for the pioneer research which he has been conducting with particular intensity in the past five years in a very "hot" innovative field – that of surface magnetism, interfaces, monolayers, ultrathin films, sandwiches and modulated structures.

It is for these papers that we are awarding him this new prize, and also for his novel computational techniques. Also very interesting are his calculations of magnetic moments in monolayers. In this context, it is important to note the following circumstances, which make Art Freeman's investigations particularly impressive. He is a theoretical physicist, but his theoretical results are not only important as theoretical achievements, but also are of great interest to many experimentalists as well, leading them to new experimental designs. In addition, Professor Freeman has been conducting research not only on a national scale, in the USA, but also has rendered it international. North-Western University, near Chicago, where Professor Freeman works, is becoming a large international centre for the physics of magnetism. Let it be noted also that Professor Freeman is known to the physical community not only for the aforementioned research work, but also for a number of other fundamental investigations. Here is an

example. My first acquaintance with him as an author began with his work, coauthored with Watson, dealing with the calculation of the exchange integral and of the electron density distribution in the shell of rare-earth metal atoms. In electron density calculations, too, he is one of the most active pioneers of research. Very important are his researches in rare-earth metals and actinides, where he is also one of the most active pioneers.

Along with the quite inconceivable activity in purely scientific creative work, Professor Freeman conducts, in parallel, science organization work, which is by no means less intensive. This is a systematic participation in the organization of numerous scientific conferences, symposia and seminars. And finally, all of us know his role as the Editor-in-Chief of the major international journal of magnetism – the JMMM.

The Award Committee have received a large number of magnificent references bestowing the IUPAP Award in Magnetism to Professor Freeman.

I wish to conclude by saying that on behalf of the IUPAP, we are giving the award for work in the field of magnetism into the deserving hands of a big scientist – our dear colleague, Professor Freeman, and we wholeheartedly wish him the best of health, new big successes in science and happiness in life.”

Professor Freeman was then invited to present the opening plenary address to the assembled participants.