## **Bockris Awarded the Preparata Medal**

## Christy L. Frazier

Distinguished Professor of Chemistry (Texas A&M, Retired) Dr. John O'M. Bockris was honored on August 16 at the 17<sup>th</sup> International Conference on Cold Fusion (ICCF17) in Daejeon, South Korea, with the Preparata Medal.

The Preparata Medal, awarded by the International Society for Condensed Matter Nuclear Science (ISCMNS), was minted in 2003 to commemorate the late Italian physicist Giuliano Preparata.

Bockris was unable to attend ICCF17. Dr. Michael McKubre, who called Bockris his "academic grandfather," accepted the award on Bockris' behalf. He offered a moving and informative tribute to Bockris' impact on the cold fusion field, including an overview of his stellar career:

Very few people get to meet their heroes. Even fewer get to meet and work with them. I doubt that anyone ever before has had the mixed experience of honoring one and mourning the passing of another [Martin Fleischmann] in the same week, at the same conference.

I first determined to follow a career as an electrochemist as an undergraduate in 1969 or 1970. One of the first names I encountered was that of Professor John Bockris, and his books, papers and teachings have guided me ever since—probably more than any other. At that time

John was at Flinders University in South Australia, "just" across the Tasman Sea from Wellington, New Zealand where I was born and studying at that time. John Dash was also in Flinders at that time working with Bockris—it is a small world.

John had arrived in Australia by a tortuous path. He was born in South Africa, educated in England with his Ph.D. at Imperial College in London in the midst of World War II. John

joined the faculty at Imperial College in 1945 and set about creating the most influential electrochemistry group ever seen in the English-speaking world—very probably in the whole world. John was the father of modern electrochemistry, responsible for developing the sub-discipline of physical electrochemistry, with

focus on physical chemistry and physics including quantum effects, at the electrified metal-electrolyte interface. In this area John's accomplishments are far too numerous to mention. He was never timid, and expected, and exacted, high standards from his colleagues and students.

He became very interested in the use of hydrogen as

a pure fuel without greenhouse implications, and is credited with coining the phrase "the hydrogen economy." In later years John became very interested in the use of methanol as a fuel, made from carbon dioxide and thus "carbon neutral."

His group attracted many fine minds, many of whom went on to develop academic families of their

To an electrochemist the names Brian Conway and Roger Parsons are extremely well known. Martin Fleischmann started work in 1947 studying "the diffusion of hydrogen through thin palladium foils," co-supervised by John Bockris and J.F. Heringshaw. My Ph.D. supervisor John Tomlinson was less well known but also brilliant. I am in a

way John Bockris' academic grandchild. There are hundreds, perhaps thousands of us in the world, as John produced more than 70 Ph.D. students in his career.

In 1953 John left from Imperial and went to the University of Pennsylvania to found an even larger group. From Pennsylvania he went to Flinders University in Adelaide, Australia, more or less on the same latitude where he and I were born, at different times, on the opposite sides of the globe. His group here had an

antipodean and much more casual appearance.



Dr. John Bockris in 2000 at Texas A&M



The Preparata Medal of the ISCMNS

It was in this period that I first came to know John personally and not just through his plentiful publications. There was a fair amount of overlap between John Bockris' group in Adelaide and John Tomlinson's

group in Wellington where I was studying. I met John on more than one occasion, and was very impressed and somewhat awed as I was scheduled to go to Southampton and wondered, if they were all that good how would I fare?

John's last appointment in 1980 was Distinguished Professor of Chemistry at Texas A&M in Texas. This is of course the place where John made his "new" career in cold fusion.

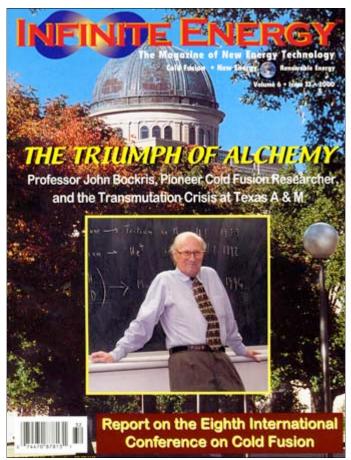
John was one of the first to attempt a replication of the Fleischmann and Pons claims, using personal information obtained from Fleischmann and a deep understanding of electrolysis. He, along with several other efforts, attempted and succeeded in forming tritium by the electrolytic method. He was very intent on being the first to find this proof of the claims and succeeded in being first by a small margin. Work at Texas A&M continued to explore the phenomenon in many other ways, including detecting extra energy from the Fleischmann-Pons cell. He even explored making gold by a "gunpowder" reaction, which got him into trouble with the university and some of his colleagues. However, this did not stop him from exploring the transmutation branch of the LENR field by organizing several conferences at College Station on the subject. John Bockris continues to explore the subject by writing papers describing his ideas. He is one of the most prolific authors in the cold fusion field and his name is on over 66 publications that describe the work of his students and his insights.

In July 2000, in *IE* #32, Dr. Eugene Mallove wrote an extensive report about Bockris' career at Texas A&M, "The Triumph of Alchemy: Professor John Bockris and the Transmutation Crisis at Texas A&M" (http://www.infiniteenergy.com/images/pdfs/MalloveIE32.pdf).

In the award letter, ISCMNS Awards Committee Chairman Dr. Edmund Storms wrote: "Please accept my personal admiration of your important contributions to LENR and to electrochemistry in general. Hopefully this medal can partially acknowledge how much you have contributed to the lives and education of your many students and friends."

Bockris provided a video acceptance speech that was presented at the ICCF banquet. He offered a summary of the speech, in which he suggested that the field focus even more on transmutation: "I've congratulated them on their work in what we used to call cold fusion and felt that it was a good life to prosper with but then I said they should not forget that there is a totally different line you can use in thinking about the reactions in solid state which are nuclear, and that is the transmutation aspect. In the development of new weapons and also new technologies there is often a need for rare elements and they're very expensive at first because they have to be discovered in the earth and recovered, but hypothetically it's possible for us to make them; some of this has already been done by Mitsubishi in Japan. I think that everyone who is doing research in this area should think about that as an alternative object to that of heat."

The Preparata Medal has previously been awarded to other luminaries in the cold fusion field: 2004 - Yasuhiro



The *Infinite Energy* special issue (#32, July 2000) on Bockris' transmutation work at Texas A&M.

Iwamura (Japan), Tadahiko Mizuno (Japan), Antonella De Ninno (Italy), Peter Hagelstein (U.S.); 2005 - Edmund Storms (U.S.), Yoshiaki Arata (Japan), Xingzhong Li (China), Michael McKubre (U.S.); 2006 - Akira Kitamura (Japan); 2007 - Alexander Karabut (Russia), Andrei Lipson (Russia), George Miley (U.S.); 2008 - Irving Dardik (U.S.).

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