

Excmo. Sr. D. Manuel Elices Calafat

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Graduated in Civil Engineering (1963). Graduated in Physics (1964). PhD. (1966). Emeritus professor of Materials Science and Technology in the Polytechnic University of Madrid.

Professor Elices' professional and research work has always centred upon Materials Science and Engineering. He has been Associate Editor of the international journals *Acta Materialia*, *Scripta Materialia* and *Journal of Advanced Cement-based Materials*. He has been chairman, consultant or a member of the Advisory Board of several international organizations – the American Concrete Institute (ACI), the International Federation of Prestressed Steel (FIB), and the International Union of Testing Research Laboratories for Materials and Structures (RILEM). He has taken part in the design, construction and upkeep of important civil engineering projects - storage tanks for liquified natural gas, nuclear reactors and various prestressed concrete structures.

He has done research on the mechanical properties of materials at very high temperatures and in cryogenic conditions, with both experimental and theoretical contributions, but his work has been centred mainly on cracking and fracture of materials. He has been invited to take part in seminars on Materials Science in a number of universities in Europe, The United States, South America, Japan and China. He promoted the new degree course in Spain of Materials Science and Engineering of which he is the supervisor. He has published more than 300 scientific papers, (h = 40) as well as 12 books and contributions to 12 others.

In the field of Fracture Mechanics, he created the Spanish Group of Fracture Mechanics and Structural Integrity in 1982, was made an honorary fellow of the European Structural Integrity Society (ESIS) and has been a member of the International Council of Fracture (ICF). Also, cofounder of the International Association of Fracture Mechanics of Concrete Structures. He has been Associate Editor of the international journals *Engineering Fracture Mechanics*, *International Journal of Fracture*, *Theoretical and Applied Fracture Mechanics* and *Engineering Failure Analysis*.

He was a member of the patronship of the Spanish National Archaeological Museum. He has taken part in several submarine excavations, author of the underwater photographs for two books about fishes, and has published several articles on marine biology.

He was elected to the Spanish Royal Academy of Science and to the Royal Academy of Engineering. He is a foreign member of the National Academy of Engineering (NAE) of the United States and of the European Academy (Section of Materials Science). Honorary doctor by the Universities of Navarra and of Carlos III. He has received various national and international awards; the Spanish National Prize *Leonardo Torres Quevedo*, Spanish National Prize of *Civil Engineering*, Comunidad de Madrid *Miguel Catalán*, Golden Medal from *Real Sociedad Española de Física*, from *Colegio de Ingenieros de Caminos*, and from *Universidad Politécnica de Madrid*, the Bengough of the *Metals Society*, the DuPont, *Allan B. Dove* medal, and the *Ramón Llull*, among others.