

Mario Nardelli
(1922–2004)

Mario Nardelli died at his home in Parma, Italy, on 24 September 2004 in his 82nd year after 58 years incessantly and fruitfully dedicated to research and teaching. He was amongst the leading crystallographers in the world and one of the pioneers in the field of structural chemistry by single-crystal X-ray diffraction in Italy and leaves a school of Structural Chemistry in Parma well known among the crystallographers of the world.

What follows is a portrait of the scientist and of the man, outlined by those who were close to him, but we believe that everybody who knew Mario Nardelli will share our memories of him.

Mario Nardelli was born in Parma on 6 January 1922; he was educated at the classical lyceum of Genova until 1941. He then moved back to Parma and on 23 March 1946 he obtained a degree in Chemistry *summa cum laude* at this University.

He started his academic career in 1946, as Assistant Professor, under the guidance of Professor Adolfo Ferrari who stimulated the initial interest of this bright young researcher in the analysis of crystal structures of inorganic salts by X-ray diffraction methods. In 1950, he was awarded the Italian National Special Prize for 'Scientific Endeavour'.

Thanks to his intense and fruitful research activity, in 1963 Mario Nardelli was appointed to the Chair of Structural Chemistry at the Faculty of Mathematics, Physical and Natural Sciences of the University of Parma. In 1967, he succeeded Adolfo Ferrari as Full Professor of General and Inorganic Chemistry and maintained this academic position until 31 October 1996, when the Italian Ministry for University and Scientific and Technological Research awarded him the title of Professor Emeritus.

Mario Nardelli was the head of the Institute of Structural Chemistry at the University of Parma and founded a school of crystallography, held in high national and international esteem. From 1979 to 1992, he also directed the Centro

di Studio per la Strutturistica Diffrattometrica of the Italian National Research Council (CNR) in Parma.

He also held many academic and institutional positions, Dean of the Faculty of Pharmacy, member of the Administrative Council of the University of Parma, President of the Italian Crystallographic Association. From 1969 to 1975, he was member of the National Italian Commission of the National Research Council. In 1976, he was awarded the gold medal for 'Meritorius Persons in School, Culture and Arts'.

In the early sixties, to give high impulse to research in structural chemistry in Parma, Professor Nardelli was the main promoter of the foundation of the first Computing Center at the University of Parma, of which he was director for more than twenty years; at the same time, he was one of the leaders of CINECA (National Center for Supercomputing and University Services), one of the foremost computing centers in Europe. Mario Nardelli, who foresaw the importance of a knowledge of computing science for young generations from the very beginning, promoted, in 1966 (for the first time in Italy), the teaching of computer programming in the chemistry degree at the University of Parma.

From 1975 to 1981, Mario Nardelli was a member of the Data Commission of the IUCr and, from 1981 to 1993, member of the IUCr Executive Committee. In August 1987, he was elected President of the IUCr, and from 1990 to 1993 he represented the IUCr at the International Council of Scientific Unions.

He made an important contribution to the growth and diffusion of crystallography in the world when, in 1972, he founded the journal *Crystal Structure Communications* in which the data reported in structural papers were submitted for the first time to an automatic check prior to publication. In 1983, this journal was incorporated in *Acta Crystallographica* Section C and the automatic checking of crystal structures was extended to all the papers published in journals where crystal structures are reported.

From 1981 to 1988, and from 1991 to his death, he was Co-editor of *Acta Crystallographica* Sections B, C and E and, in this capacity, he dedicated most of his time to checking many of the papers submitted to the journal personally; to many authors, he not only gave advice on the mistakes made, but also provided an accurate analysis of the source of the errors and the exact values calculated by himself.

In his scientific activity, Mario Nardelli was highly rigorous and dedicated much effort to finding methods for calculating the reliability of the data reported, including estimated standard deviations. For this reason, he devoted part of his time to writing a series of crystallographic computing programs, made freely available to the crystallographic community.

But throughout this intense spread of activities, Mario Nardelli always remained attracted to every scientific question, and anyone with an intriguing problem always found his door open.

Mario Nardelli constantly stimulated our interest in chemical crystallography but we were always free to choose our research lines and to decide how to organize our activities even if he was always ready, when asked, to give us help and advice.

Mario Nardelli always kept a humble attitude, without prejudices with regard to science and colleagues. Most of us remember when he, already famous in the world of crystallographers, attended (with some of us as the teachers) as an ordinary 'student' the Italian Schools of Crystallography, a traditional school mainly organized for young researchers who were making their first steps in

crystallography, because, as he always used to say, ‘there is always occasion to learn’.

We now receive this scientific and moral inheritance and it will be our duty to transfer the human and scientific lessons of Mario Nardelli to the new generations of young researchers.

His fellows at the University of Parma