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## Curriculum Vitae Prof. Dr. André Authier



**Name:** André Authier  
**Born:** 17 June 1932, La Flèche, France

### **Main areas of research: X-ray diffraction, X-ray topography, growth defects**

André Authier is a specialist of the dynamical theory of X-ray diffraction by crystals and X-ray topography. He was the first to make a direct observation of the propagation of X-ray wave fields in a crystal at the Bragg reflection and was one of the early contributors to the theory of the diffraction of X-rays by highly deformed crystals.

### **Academic and Professional Career**

1971 - 1996    Professeur, Université P. et M. Curie, France  
1968 - 1971    Professeur sans chaire, Faculté des Sciences, Université de Paris, France  
1961 - 1965    Sous-Directeur du Laboratoire de Physique Théorique au Collège de France, France  
1961            DSc. Paris University, France  
1955 - 1956    Visiting Fellow, Massachusetts Institute of Technology, USA  
1951 - 1955    Elève de l'École Normale Supérieure, France

### **Functions in Scientific Societies and Committees**

Editor of Volume D, Crystal Physics, of the International Tables of Crystallography,  
First Edition 2003  
1993 - 2001    Editor of Acta Crystallographica, Section A  
1991 - 1994    Member of the "Microgravity Advisory Committee", " , European Space Agency

- 1990 - 1993    President of the International Union of Crystallography
- 1977 - 1981    Member of the "Material Science Working Group", European Space Agency
- 1972 - 1975    President of the European Crystallographic Association

### **Honours and Awarded Memberships**

- 2007            Officier de la Légion d'Honneur
- 1991            Chevalier de la Légion d'Honneur
- 1983            Silver medal CNES (French National Centre for Spatial Research)
- 1969            Chevalier de l'Ordre National du Mérite
- 1963            Prix Danton de l'Académie des Sciences
- 1961            Médaille de bronze du C.N.R.S.

### **Major Scientific Interests**

André Authier is a specialist of the dynamical theory of X-ray diffraction by crystals and X-ray topography. He was the first to make a direct observation of the propagation of X-ray wave fields in a crystal at the Bragg reflection and was one of the early contributors to the theory of the diffraction of X-rays by highly deformed crystals. With co-worker F. Balibar, he determined the limit above which ray theory is no longer applicable. He analysed and explained the formation of the various parts of the image of the defects in X-ray topography. He applied X-ray topography to the characterization and study of crystal defects, such as growth defects as well in synthetic crystals and in minerals, ferroelectric domains and electrical defects in semiconductors. He is now interested in the history of Crystallography.