

Duffar Thierry

“Thermodynamics of crystal growth”



DUFFAR Thierry

1st class University Professor at Grenoble Institute of Technology, France

Education: **Engineer** in Chemistry, Lyon, France, 1978
Master in Mineral Chemistry, Grenoble, 1980
Ph-D in Materials Science, Grenoble, 1982
Habilitation, Grenoble, 1999

Bibliography: 140 papers in reviewed journals,
12 patents,
20 invited lectures,
Editor of one book “Crystal Growth processes based on capillarity”,
Author of 8 chapters in books on crystal growth

Committees:

International Organization of Crystal Growth, Executive Committee.

European Network of Crystal growth, Coordinator,

International Union of Crystallography: Committee « Crystal Growth and Characterisation of Materials » (since 1999)

Editorial committee of the journal « Crystal Research and Technology »

Topics of interest: study the effect of growth parameters (thermal field, convection, growth rate, set-up...) on the crystal quality (chemical homogeneity, structural defects, residual stresses, grains and twins...).

The obtained knowledge allowed optimisation of practically all crystal growth processes, for various crystals: Bridgman (growth of CaF_2 and of BGO), Czochralski (growth of InP and of GaAs), zone melting (SiC from solution in Si), Verneuil (growth of Al_2O_3), shaping (also Al_2O_3). More recently, solidification of photovoltaic silicon.