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Some aspects of the industrial and scientific research in fluorine chemistry and its evolution in the nineties

M. Malavasi
R&D and Process Technology, AUSIMONT S.p.A., Bollate, MI (Italy)

During the eighties industrial growth of fluorinated compounds and materials has been strong. This growth has been fuelled by a considerable flow of funds for research. But, within this favourable framework, shadows are appearing on the horizon of traditional fields of activity. Nevertheless, the eighties have made us aware of some interesting ideas with the potential for expansion during the nineties.

In our view, among the more promising opportunities, are:

— full exploitation of the unique properties of fluorine through more rational and intelligent use of the material

— 'targeted fluorine': active principles containing fluorine atoms, where fluorine plays the key role for the performance enhancement.

— 'tuned fluorine': auxiliaries and materials with tailored structure and composition, obtained through novel introduction technologies of the fluorinated moieties.

— 'fluorine where it works': new systems protecting and modifying the surface properties, for auxiliaries and polymers.

— CFC substitution

— new methods of synthesis and new structures aimed at amorphous superpolymers.

New roles and skills may have to be defined to address new fields of innovation, both in industry and academia.