# 2. Study of the elastic properties of polymer materials through the propagation of ultrasonic waves

Prof. C. Lacabanne. Université de Toulouse M.L. Piché, NRC, Materials Engineering Institute

Acoustic spectroscopic methods on polymers are involved.

The Industrial Materials Research Institute in Boucherville has real expertise in acoustic spectroscopy and the complementarity of the two laboratories involved is apparent. Such co-operation is therefore of real scientific value.

## 3. Study of the kinetics of crystallization in terphtalate polyethylene using an acoustic spectroscopic method

Prof. J. Perez. INSA of Lyon.

M.L. Piché. NRC. Industrial Materials Research Institute.

This subject is closely related to the preceding one and it merits the same favourable scientific evaluation.

4. Influence of the structure of solidification and of thermomechanical treatment on the mechanical properties of smelted alloys and metal-based composites

M.M. Suery. INP Grenoble

M.J. Masounave. NRC. Industrial Materials Research Institute

This is a study of composite materials, which can present some remarkable properties. Two teams are involved, with programs that appear to be quite complementary. Scientific opinion is unqualifiedly positive, and conditions for protecting intellectual property are to be worked out in advance.

## 5. Theoretical and experimental studies on N-layer super-networks (N > 2)

A study concerning the vibratory properties of super-networks and the propagation of phonons in these structures. Essentially basic research, of real scientific value.

#### Miscellaneous projects

#### (1) NRC/CNRS

Cesium jet frequency standards Agreement - no funding problem