

## **ABSTRACT**

### **Method for making a low frequency acoustic transducer**

The present invention relates to a process for producing a block of low-frequency piezoelectric composite material consisting of rows of superposed ceramic posts embedded in a dielectric.

This process consists mainly in the production of the block of composite material from two superposed identical half-blocks, produced by cutting into a single pre-machined piezoelectric ceramic block.

According to the invention, the block of ceramic material thus constituted is then machined so as to form a structure comprising rows of aligned posts, each post being formed from two elementary posts facing each other in strict alignment. The ceramic structure thus produced is then integrated into an appropriate dielectric matrix.

The block thus produced is intended to be used for manufacturing acoustic transducers from composite materials.

The invention relates in particular to the field of sonar detectors designed to detect objects located at a relatively short distance from the detector.

Figure 5.