High sensitivity novel piezoceramics for advanced applications - textured, thick films and multilayer structures

Fact Sheet

Project Information

PIRAMID
Grant agreement ID: G5RD-CT-2001-00456
Funded under
FP5-GROWTH

Start date:
1 May 2001

End date:
31 October 2004

Overall budget
€ 5,707,722

EU contribution
€ 2,358,145

Coordinated by
GROUPEMENT D'INTERÊT
PUBLIC "ULTRASONS"
France

Objective

For the next device generation (micromotors, actuators, sensors..), classical PZT materials cannot satisfy the demands for a wide variety of actuator applications: exceptionally high piezoelectric coefficients, high electromechanical coupling coefficients and high dielectric permittivity. Relaxor-ferroelectric solid solutions are now considered as the best candidates for these applications. Improved properties of relaxor ceramics will be investigated through exploration of diagrammes between relaxor materials, new powder processing such as controlled dispersion, sol-gel synthesis, control of ceramic microstructure using new methods to prepare textured ceramics by hot forging, casting. Advanced material will be up-scaled and promoted in the European market through an end-users group and two test vehicles, Sonar transducer & Inkjet printer head, will be built.
Programme(s)

Topic(s)

Funding Scheme

CSC - Cost-sharing contracts

Coordinator

GROUPEMENT D'INTERÊT PUBLIC "ULTRASONS"

Address
Boulevard Tonnellé 2 Bis,
Faculté De Médecine
37032 Tours
France

Participants (13)

BRUEL & KJAER SOUND & VIBRATION MEASUREMENT A/S

Address
Skodsborgvej 307
2850 Naerum

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS

Address
S/n,cantoblanco S/n
28049 Madrid

FERROPERM PIEZOCERAMICS A/S

Address
Hejreskovvej 18A
3490 Kvistgard
FOUNDATION FOR TECHNICAL AND INDUSTRIAL RESEARCH AT THE NORWEGIAN INSTITUTE OF TECHNOLOGY
Norway
Address
1,Forskningsveien 1
0314 Oslo

Iskraemeco d.d.
Slovenia
Address
Savska Loka 4
4000 Kranj
Website

JOZEF STEFAN INSTITUTE
Slovenia
Address
39,Jamova 39
1001 Ljubljana

MEDIZINTECHNIK BASLER AG
Switzerland
Address
Im Oberen Boden 150
8049 Zurich

NANOMOTION LTD
Israel
Address
Gutwirth Park Technion
32000 Haifa

SWISS FEDERAL INSTITUTE OF TECHNOLOGY LAUSANNE
Switzerland
Address
Mx-g Ecublens
1015 Lausanne
THALES S.A.
France
Address
Domaine De Corbeville
91404 Orsay

THALES UNDERWATER SYSTEMS SAS
France
Address
Route Des Dolines 525
Sophia Antipolis
Website

VERMON SA
France
Address
Rue Du Général Renault 180
37000 Tours

XAAR JET AB
Sweden
Address
Elektronikhojden 10
175 26 Jaerfaella

Last update: 12 April 2005
Record number: 55411

Permalink: https://cordis.europa.eu/project/id/G5RD-CT-2001-00456/

© European Union, 2020