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X-ray expert system for electronic films quality improvement (ESQUI)

Fact Sheet

Project Information

ESQUI

Grant agreement ID: G6RD-CT-1999-00169

Project closed

Start date

1 February 2000

End date

31 January 2003

Funded under

Programme for research technological development and demonstration on "Competitive and sustainable growth 1998-2002"

Total cost

€ 1 313 450,00

EU contribution

€ 941 389,00

Coordinated by

ITALIAN INSTITUTE FOR THE
PHYSICS OF MATTER



Italy

Objective

The project aims to develop an instrument for X-Ray diffractometry and X-Ray reflectivity dedicated to measurements of film thickness, crystalline phase, texture and residual stress of supported thin film dedicated to microelectronic materials and devices. The design of such instrument will address the need of a non-destructive, fast and user friendly technique able to characterize thin film for the microelectronics industry. The project aims to provide a tool that overcomes the intrinsic limitation that

ellipsometry has on ultra thin film thickness measurements, providing additional fundamental information on this films and delivering them in a user friendly form facilitating development of new processes in microelectronics. An expert system will be developed where appropriate computing algorithm for data interpretation and a friendly graphical user interface will be optimized according to the need of the end user.

Fields of science (EuroSciVoc)

[natural sciences](#) > [computer and information sciences](#) > [artificial intelligence](#) > [expert systems](#)

[engineering and technology](#) > [materials engineering](#) > [coating and films](#)

[natural sciences](#) > [physical sciences](#) > [electromagnetism and electronics](#) > [microelectronics](#)



Programme(s)

[FP5-GROWTH - Programme for research technological development and demonstration on "Competitive and sustainable growth 1998-2002"](#)

Topic(s)

[1.1.3.-6. - RTD Activities of a Generic Nature : Measurements and Testing](#)

Call for proposal

Data not available

Funding Scheme

[CSC - Cost-sharing contracts](#)

Coordinator



ITALIAN INSTITUTE FOR THE PHYSICS OF MATTER

EU contribution

No data

Total cost

No data

Address

Via C. Olivetti 2
20041 AGRATE BRIANZA
 Italy 

Participants (6)



CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS

 Spain

EU contribution

No data

Address

S/N,Cantoblanco S/N
28049 MADRID 

Total cost

No data



INEL INC.

 France

EU contribution

No data

Address

street Chemin DPT 405
45410 ARTENAY 

Total cost

No data



ITAL STRUCTURES DI PASTI FABIO

 Italy

EU contribution

No data

Address

Via Monte Misone Zona Industriale Baltera
38066 RIVA DEL GARDA 

Total cost

No data



STMICROELECTRONICS S.R.L.

 Italy

EU contribution

No data

Address

Via C. Olivetti 2
20041 AGRATE BRIANZA 

Total cost

No data



UNIVERSIT DEGLI STUDI DI TRENTO

 Italy

EU contribution

No data

Address

Via Mesiano 77
38050 BIENO 

Total cost

No data



UNIVERSITE DU MAINE

 France

EU contribution

No data

Address

Bd O. Messiaen

72017 LE MANS



Total cost

No data

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