



«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO GALILEO GALILEI, FOUNDER OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



# INTERNATIONAL CONFERENCE ON GETTERING AND DEFECT ENGINEERING IN SEMICONDUCTOR TECHNOLOGY

## GADEST '07

ERICE-SICILY: 14 – 19 OCTOBER 2007

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

### TOPICS AND LECTURERS

*Large diameter crystal growth*

*Crystalline silicon for solar cells: single crystals, multi-crystalline Si, ribbons,*

*Si thin films on substrates*

*Silicon-based materials and advanced semiconductor materials (strained Si,  
SOI, SiGe, SiC, Ge)*

*Impurities (oxygen, carbon, nitrogen, fluorine, metals) in Si*

*Modeling/simulation of defects in Si/semiconductors*

*Defect engineering in microelectronics and photovoltaics*

*Gettering and passivation techniques*

*Defect and impurity characterization (physical and electrical)*

*Si-based Nanostructures (nanocrystals, nanowires, nanodevices)*

*Silicon-based heterostructures and strain engineering*

*Silicon-based optoelectronics*

- G. KISSINGER, IHP, Frankfurt, DE
- J. RATH, Utrecht University, Utrecht, NL
- S. K. ESTREICHER, Texas Tech University, Lubbock, TX, US
- N. STODDARD, BP Solar, Frederick, MD, US
- K. van BENTHEM, Oak Ridge National Laboratory, TN, US
- W. SCHRÖTER, Georg-August-Universität Göttingen, DE
- F. PRIOLO, Università di Catania, IT
- A. MÜLLER, Deutsche Solar AG, Freiburg, DE
- H. STRUNK, University Erlangen, DE
- H. RICHTER, IHP, Frankfurt, DE
- M. KITTLER, IHP/BTU Joint Lab Cottbus, Frankfurt, DE
- P. WERNER, MPI-MSP, Halle, DE
- E. WEBER, Fraunhofer-Institut für Solare Energiesysteme ISE, Freiburg, DE
- B. JONES, University of Exeter, UK
- W. VANDERVORST, Imec, Leuven, BE
- Z. SHI, Suntech, CN
- J. THIBAUT, Université Paul Cézanne, Marseille, FR
- L. LEE, RTI International, North Carolina's Research Triangle Park, US

### PURPOSE OF THE CONFERENCE

GADEST (Gettering and Defect Engineering in Semiconductor Technology) Conference covers a broad range of topics - from theoretical analysis toward practical engineering solutions - that makes this meeting unique in the field. The purpose of the Conference is to provide a forum for interactions between scientists and engineers engaged in the field of semiconductor defect physics, materials science and technology.

Fundamental aspects as well as technological problems associated with defects in electronic materials and devices will be addressed, ranging from nanoelectronics to photovoltaics. The Conference will offer ample time for discussion and informal interactions between scientists and engineers coming from all over the world and representing different disciplines. This will ensure a lively exchange of opinions and may lead to a better understanding of the complex aspects of defect engineering which over the years was starting to shift from art into real science.

The strengthening of the interactions and exchanges between the communities working in the fields of crystalline silicon for nanoelectronics and photovoltaics is a special ambition of the forthcoming GADEST Conference.

### APPLICATIONS

Persons wishing to attend the Conference should apply in writing to the Chairman:

- Professor Anna CAVALLINI  
Università di Bologna  
Dipartimento di Fisica  
Via Irnerio, 46 – 40126 BOLOGNA, Italy  
email: [chairman@gadest2007.org](mailto:chairman@gadest2007.org)

specifying:

- full name(s), address, age, nationality;
- academic qualifications, present position and affiliation and/or a short CV;
- their specific interest in the Course.

### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchise, by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the «Ettore Majorana» Foundation and Centre for Scientific Culture can be found on the WWW at the following address:  
<http://www.ccsem.infn.it>

- PLEASE NOTE

Participants must arrive in Erice on 14 October, not later than 5 pm.