Directors of the Course

David Ginley - NREL, Colorado, US John M. Poate - Colorado School of Mines, US Emanuele Rimini - University of Catania, Italy Abdelilah Slaoui - InESS-CNRS, Strasbourg, France

Director of the school

G. Benedek - University of Milano Bicocca, Italy

Emfcsc president and director of the centre

A. Zichichi - University of Bologna, Italy

Scientific Secretary

Antonio Terrasi - University of Catania, Italy

Supported by:

- Italian Ministry of Education, University and Scientific Research
- Sicilian Regional Government
- Materials Research Society
- European Materials Research Society





HOWTO APPLY

- 1. Download the registration form at the link http://www.ct.infn.it/~terrasi/erice.html or request it sending an e-mail to antonio.terrasi@ct.infn.it
- 2. Fill and send the form to the same e-mail address: antonio.terrasi@ct.infn.it
- 3. Pay the registration fee by the following bank transfer: account holder: FEMCCS
 Unicredit Private Banking S.p.A.
 Filiale di Trapani, Italy

Account number: 000600000655

Bank code: ABI: 03223 - CAB: 16400 - CIN: W IBAN: IT 04 W 03223 16400 000600000655

SWIFT: UNCRIT2VTPW

Reference: International School of Solid

State Physics, 47th Course (27 May-2 June 2010)

Deadline for registration and fee payment April 30th 2010





«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 School of Solid State Physics 47th Course

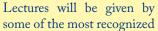
"Materials for Renewable Energy"



Erice (Italy)
May 28th – June 2nd 2010

SCOPE OF THE SCHOOL

Aim of the School is to present the state-o-the-art and the future perspectives for materials applied to the production and storing of renewable and sustainable energy.





academic and industrial expert, merging physics, chemistry and engineering knowledge in several fields. A general overwiev of the energy suppying will be presented by discussing also conventional energy sources and next generation nuclear production. Topics of the school are: the global warming problem, conventional and sustainable technologies, solar energy conversion (PV and thermal), thermal energy conversion, solar chemical conversion, wind energy conversion, fuel cells, storage and vehicles. The School will be a great opportunity for bringing together worldwide students, young scientists and experts in a friendly atmosphere for reciprocal benefits in terms of enthusiasm, knowledge and new ideas.

GENERAL INFORMATION

A max number of 150 students will be allowed. The registration fee is $800 \, \in$, plus $100 \, \in$ per day for each accompanying person (if any). The fee includes lodging in double room, meals, social events and transfer airport-Erice-airport (Palermo or Trapani). Arrival May 27th before 5 p.m., departure June 3rd before 12 a.m.

All details can be found in the <u>registration and travel form</u> downloadable at the link:

http://www.ct.infn.it/~terrasi/erice.html or requested to the scientific secretary:

antonio.terrasi@ct.infn.it

Deadline for registration and fee payment: April 30th 2010.

Phone numbers

Antonio Terrasi: +39 0953785431 (off.)

+39 3392821464 (mob.)

Local secretariat of the EMCSC: 0923 869133

VENUE

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 Sicanians 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 Anchises, by his son Aeneas, 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



Topics	Speakers
CO2	Lynn Orr
Global Warming	(Stanford University, US)
Energy Balance	Paul Waide (EEP, Navigant Consulting Inc., U
Energy:	George Crabtree
The Big Picture	(Argonne Nat. Lab., US)
Conventional	John Poate
Technologies	(Colorado School of Mines, US)
Organic PV	David Ginley
& Storage	(NREL Colorado, US)
PV	Antonio Luque
3rd generation	(Politechnic Univ. of Madrid, Spai
PV	Jef Poortmans
Overview	(IMEC, Belgium)
PV	Dave Carlson
Conventional	(BP Solar, Germany)
PV	Salvo Coffa
Industry	(STMicroelectronics, Italy)
PV	Billy J. Stanbery
Thin films	(HelioVolt, Austin - US)
Vehicles	Michael Schreckenberg (Univ. of Duisburg-Essen, Germa
Fuel Cells	Ryan O'Hayre (Colorado Fuel Cell Center, US)
Si wires and plasmonics for PV	Harry Atwater (Caltech, US)

Mila Hadjieva

David Cahen

Nick Pugliano

(Central Lab of Solar Energy, Bulgaria)

(Weizmann Institute of Science, Israel)

(Rohm and Haas Company, US)

Solar Thermal: transfer

and storage materials

Fuels via Solar Energy

Green Chemistry