

Science Colloquia

del Dipartimento di Fisica e Astronomia

“Ettore Majorana”



Dr. Francesco La Via

CNR - Istituto per la Microelettronica e Microsistemi (IMM) – Catania

“Silicon Carbide: a challenge of the XXI century”

13/11/2019, mercoledì, ore 16:30 Aula Magna-DFA

ABSTRACT

Silicon Carbide (SiC) presents a high breakdown field (2-4 MV/cm) and a high-energy band gap (2.3–3.2 eV), largely higher than silicon and for these reasons is the ideal material for high power devices. In the last 20 years this technology had a large development in Catania thanks to the pioneering works of several people of the Physics Department and of the CNR-IMM. Today, the power devices on SiC substrates are the main products developed in the Catania site of STMicroelectronics. In this talk I will cover the history of SiC in Catania, the main advantage of SiC vs. silicon, the development of the material growth process and the new applications and the new projects for the future.

Organizzato dai Prof. R. Caruso & G. Falci