

SiGe, Ge, & Related Compounds: Materials, Processing, and Devices Symposium



Las Vegas, Nevada
October 10-15, 2010

The SiGe, Ge, & Related Compounds Symposium is part of the Fall 2010 218th Electrochemical Society Meeting

**Abstract Submission
Deadline**

April 15th, 2010

Symposium Topics

The Fourth International SiGe, Ge, & Related Compounds: Materials, Processing, and Devices Symposium is part of the Fall 2010 ECS conference to be held in the Riviera Hotel Las Vegas, Nevada from October 10-15, 2010. This meeting will provide a forum for reviewing and discussing all materials and device related aspects of SiGe, Ge, Related Compounds (eg SiC). There are 9 areas of interest for the Symposium described below:

1. Heterojunction Bipolar Transistors

Device physics, process technology, modeling issues, reliability, and circuit applications (analog, digital, and RF to mm-wave).

2. FET Technology

SSCMOS, SiGe FET structures, SiGe HEMTs, SiGe MODFETs, SiGe FET structures on SOI, RTD, Ge-FETs, Low voltage, & low power

3. Optoelectronics

Detectors, Waveguides, Quantum cascade structures, Photovoltaic cells, Photoluminescence, Electroluminescence, Integration with CMOS electronics, Ge buffers for III-V Optoelectronics on Si, monolithic optoelectronic integrated circuits (OEICs).

4. Epitaxy

Surface preparation of Si, SiGe and Ge for low thermal budget Epitaxy; Growth of all kinds of group IV epitaxial layers: graphene, Si, Ge, SiC, SiGe, SiGe:C, GeSn, SiGeSn. Novel growth techniques, precursors, tools; Selective growth; Novel in-situ doping approaches; Growth of III-V on SiGe layers or Ge; Quantum wire/dot growth.

5. Processing

All aspects of processing including diffusion, oxidation, strain, thermal mixing, and defects. Impurity diffusion and diffusion suppression, Si and Ge intermixing, Oxidation and Nitridation, Cleaning and etching of SiGe, Ge, and SiGeC films.

6. Strain Engineering

Relaxed SiGe buffer layers, pseudomorphic SiGe, superlattices, embedded SiGe, Ge condensation, SSOI, SGOI substrates, global strain, local / process-induced strain, strain characterization, strain modeling & simulation, defects, manufacturing issues.

7. Surfaces and Interfaces

High K interface, Metal Contact, Interfacial electrical properties and its characterization. Electro-mechanical properties of SiGe layers, MEMs, TFTs,

8. Germanium and Related Compounds

Novel Structures Growth (Si:C, III-V on Ge/SiGe), Strain, Devices, Defects, Diffusion, Dielectric Deposition, Surface Effects

9. Emerging Applications

Nano-structured devices, quantum computing, THz devices, electro-mechanical properties of SiGe layers, MEMs, TFTs, amorphous SiGe layer applications.

Special Evening Workshop Session

A Panel of experts will discuss issues related to a topic in SiGe, Ge, or Related Compounds

Conference & Symposium Details

Conference Fees and Registration

The SiGe, Ge, & Related Compounds Symposium is part of the Fall 2010 Electrochemical Society Conference. Registration and Hotel arrangements must be booked through the ECS (see <http://www.electrochem.org>).

SiGe & Ge Symposium Details

For the latest symposium details please see the Symposium website at: www.ecssige.org. The Symposium website is maintained by John Boquet (boquet@us.ibm.com)

Abstract Paper Submission

Authors must submit an ECS abstract (using the ECS provided template) to the Electrochemical Society Website. The ECS website will be open for abstract submission to the SiGe, Ge, & Related Compounds Symposium from December 27 to April 15th, 2010. Please note that this deadline is earlier than the general ECS conference deadline. All authors, invited and contributed, must submit an ECS abstract and a Proceedings manuscript both to the ECS website by the respective submission deadlines. Details are at the Symposium website (www.ecssige.org).

Abstract Submission deadline:

April 15th, 2010

www.electrochem.org

Proceedings Manuscript Submission

The Symposium Proceedings will be available at the time of the Symposium and will serve as the digest of technical papers. All regular and invited paper authors will need to submit a full-length manuscript to the Electrochemical Society website www.electrochem.org. Detailed instructions and templates for the preparation of the Manuscript may be found at the ECS Website open for submission May 28th. Note that the Proceedings Manuscript must be submitted to the Electrochemical Society website.

**Proceedings Manuscript
Submission deadline:**

June 25th, 2010,

www.electrochem.org

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