

## Location

The workshop will be held at **MINATEC** in **Grenoble**, France on **March 11 to 14, 2012**.



Courtesy: MINATEC

Grenoble is a major, world-wide scientific center. The technical expertise and the synergy between university, research and industry contribute to its successful image. Minatec® Innovation Center is one of the examples illustrating the vitality and the diversity of microelectronics activity in Grenoble area. It is one of the few places worldwide to bring together the human, corporate and material resources needed to rise to the challenge of further miniaturization.



Courtesy: Ville de Grenoble

Grenoble is also well known for its exceptional natural environment and the diversity of its urban and cultural life. Located at the heart of the French Alps, the city is surrounded by beautiful mountains. The area provides numerous winter sport facilities.

## Important Deadlines & Contact

### Deadlines

**Abstracts are due :** **December 05, 2011**

Abstracts should be submitted in a 2-pages format at [www.mam-conference.org](http://www.mam-conference.org)

**Submission of papers :** **March 11-12, 2012**

Full-length papers will be published in a special issue of **Microelectronic Engineering**. Submission of the papers will be due at the beginning of the workshop.

### Registration Fees

Registration for the whole conference (*)			
	before 15 <sup>th</sup> Feb. (Advanced Reg.)	after 15 <sup>th</sup> Feb. (Late)	On-site
<b>Students</b>	275 €	325 €	350 €
<b>All except students</b>	550 €	600 €	625 €

(\*) Fee include all sessions, all meals, conference dinner & abstracts volume

Registration for 1 or 2 days (**)			
	150€/ day	All except students	250€/ day
<b>Students</b>			
<b>All except students</b>			

(\*\*) This fee does not include conference dinner.

### Contact

**Website :** [www.mam-conference.org](http://www.mam-conference.org)

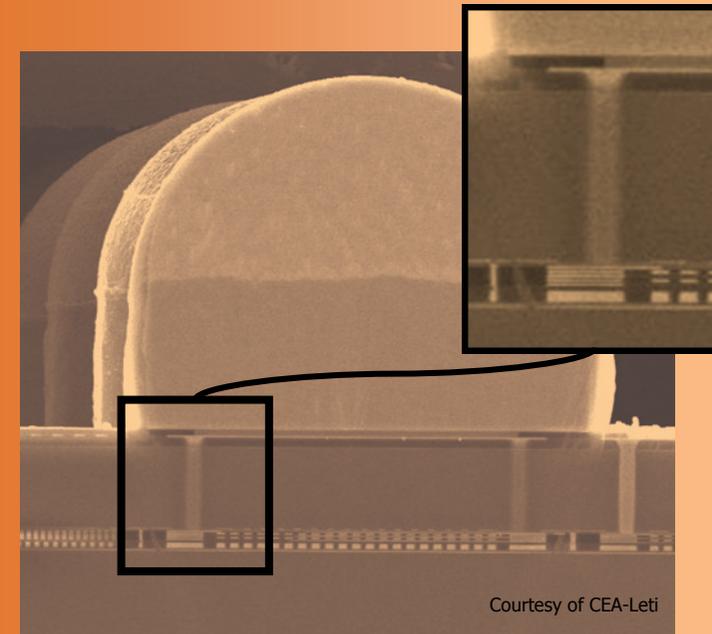
**Email :** [mam2012@insight-outside.fr](mailto:mam2012@insight-outside.fr)

## MATERIALS FOR ADVANCED METALLIZATION

# MAM 2012

A single-session Workshop devoted to  
Materials Research,  
Material Properties and Interactions

## FINAL ANNOUNCEMENT



Courtesy of CEA-Leti

**March 11-14, 2012**  
**Minatec, Grenoble, France**

**[www.mam-conference.org](http://www.mam-conference.org)**

## Invited speakers

**Key note : Dr. J. Michailos**, STMicroelectronics, FRANCE - *From 2.5D to 3D integrations at STMicroelectronics* .

**Dr. K. Croes**, IMEC, Belgium - *Reliability challenges during different phases of 3D IC processing*.

**Pr. F. Hodaj**, Grenoble INP, France - *Thermodynamics and kinetics of interfacial reactions in microelectronic packaging*.

**Dr. F. Iacopi**, Griffith University, Australia – Scaling further the dielectric k value: hard stop or moving target.

**Pr. J. Koike**, Tohoku University, Japan - *CVD formation of an ultra-thin diffusion barrier for future technology nodes* .

**Dr. Y. Loquet**, STMicroelectronics, Albany US - *Advanced processes for C20 BEOL*.

**Pr. J. Robertson**, University of Cambridge , England - *Graphene for interconnects*.

**Pr A. Souifi**, Université de Sherbrooke, Canada - *Integration of new function in BEOL*.

**Dr. E. Sangiorgi**, University of Bologna, Italy - *Integration of energy harvesting devices on CMOS circuits*.

**Pr. C. Vallée**, LTM – Leti, France - *Materials and processes for non-volatile resistive memories*.

**Dr. A Vantomme**, KU Leuven, Belgium - *in-situ RBS during silicide formation*.

**Dr. Zhen Zhang**, IBM Watson Research Center, US – *Advanced contact technology: from material properties to device applications*

**Dr. Q. T. Zhao**, Forschungszentrum Jülich, Germany - *ultrathin epitaxial contacts on Si and Si-Ge alloys: structural and electrical investigation*.

## Topics of Materials for Advanced Metallization

### The submitted papers should address the following materials and processes...

Metallization for copper interconnects, contacts, metal gates, diffusion barriers, through silicon vias ...

Intermetal isolation  
Porous ULK and ELK dielectrics, air gap and others

Dielectric liners for diffusion barriers, etch-stop, sealing and capping

Deposition, patterning, cleaning, surface fonctionnalization and other process aspects

Architecture and device integration

Silicides and germanides

Materials for memories  
high-k, phase change, nanodots, resistive oxides, ...

Innovative design approaches  
X-architecture, DfM, DfR, DfT, DfY

Packaging materials and technologies

Nanomaterials  
Carbon nanotubes, nanowires, nanodots...

### ... advanced characterization and modelling activities...

Reliability, lifetime and analytical techniques

Advanced characterization

Modeling and simulation

### ... covering nanoscale applications

Alternative interconnects  
3D integration, nano structures, optical & wireless systems

Copper and non copper advanced interconnects

System-on-chip and system-in-package

Memories devices  
MRAM, FeRAM, CBRAM, PCRAM, ...

Advanced devices

MEMS, NEMS

## Committee members

### Scientific Program Committee

<b>M. ALESSANDRI</b>	Micron, Agrate, Italy
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<b>C.J WILSON</b>	IMEC, Leuven, Belgium
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