

PiezoNEMS Workshop

Dec. 1st, 2016 - PHELMA-Minatec, Grenoble, FRANCE

8h30 – 9h : Registration

9h – 9h10: General introduction – G. ARDILA

9h10 – 10h10: Session 1

- **Thibault Ricart** (Enerbee, Grenoble)
Enerbee: from Energy harvesting to a real product
- **Skandar Basrouf** (TIMA, Grenoble)
"PiezoMEMS for energy harvesting and for haptic devices"
- **Sergey Nesterov** (NT-MDT, Ireland)
"New development in Piezo Response Force Microscopy"

10h10 – 10h40 : Break – Poster session – Industrial demonstrations

10h40 – 12h00: Session 2

- **Noëlle Gogneau** (C2N, site Marcoussis)
« III-Nitrides nanowire growth and their piezoelectric properties"
- **Céline Ternon** (LMGP, Grenoble)
"Functional ZnO nanonets"
- **José Penuelas** (INL, Lyon)
Semiconducting core / piezoelectric shell nanowires
- **Eleni Pavlopoulou** (LCPO, Bordeaux)
"Structure-Function Relationships in Piezo-/Ferro-electric Polymers"

12h00 – 14h30 : Lunch Break - Poster session – Industrial demonstrations

14h30 – 15h30: Session 3

- **Stéphane Monfray** (STMicroelectronics, Crolles)
"Challenges of Innovative Energy Harvesting integration on Silicon"
- **Guylaine Poulin-Vittrant** (GREMAN, Tours)
"Key issues for designing and manufacturing efficient nanogenerators incorporating hydrothermally grown ZnO nanowires"
- **Elise Saoutieff** (CEA-LETI, Grenoble)
"Individually contacted piezoelectric nanowires integrated onto a microelectronics chip"

15h30 – 16h00 : Break – Poster session – Industrial demonstrations

16h00 – 17h00: Session 4

- **Jean-Frederic Martin** (ARVENI, Bron)
TBD
- **Ausrine Bartasyte** (FEMTO-ST, Besançon)
"Towards high quality epitaxial piezoelectric LiNbO3 thin films"
- **Gustavo Ardila** (IMEP-LAHC, Grenoble)
"Nano-piezo-composites: from simulations to devices"

17h00-17h30 : Discussion & conclusions

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Posters list

1. "Study of piezo-tunnel effect", R. Rafael, E. Puyoo and C Malhaire, INL, Lyon
2. « Broadband vibration harvesting », Adrien Morel et al., CEA/LETI/DACLE/LGECA, Grenoble
3. « Piezoelectric ZnO/PMMA blends », J. Maiz et al., LCPO, Bordeaux
4. "Low temperature density controlled growth of ZnO nanowires for piezoelectric energy harvesting", S. Boubenia et al. Greman, Tours
5. « Epitaxially strained SrTiO₃ », S. Bagdzevicius, N. Setter, CNRS/Grenoble INP/LMGP, Grenoble
6. "Nitride NWs: From Rigid to flexible PG", L. Lu, N. Jamond, P. Chrétien et al., Université Paris Sud, Paris
7. « Optimization of dielectric matrix for ZnO nanowire based nanogenerators », M. Parmar et al., IMEP-LaHC, Grenoble Univ. Grenoble
8. « III-N Piezoelectric Nanowires », L. Jaloustre, NPSC / Institut Néel / CNRS, Grenoble
9. «MSS of LiNbO₃ & KNbO₃ nanowires », Vincent Astié, Anthony Almirall, FEMTO-ST, Besançon.
10. «Epitaxial ZnO films », Sabina Kuprenaite et al, FEMTO-ST, Besançon.
11. TBD, A. El Kacimi et al., CEA-LETI, Grenoble