



N A M e

GDR NanoMaterials for Energy applications



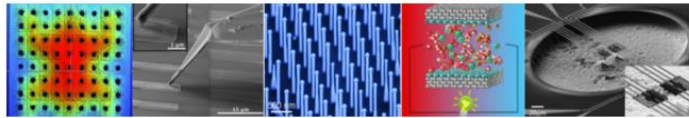
Journées Plénières GDR NAME, Oct. 3rd-5th 2022

	Mon. Oct. 3rd		Tue. Oct. 4th	Wed. Oct. 5th
09:00		09:00	Invited: Manfred KOHL	Invited: Dario NARDUCCI
09:20		09:20		
09:40		09:40		
10:00		10:00	Nanoscale Transport Properties II	Thermal Management
10:20		10:20		
10:40		10:40		
11:00	Inscriptions	11:00		
11:20		11:20		Coffee Break, posters & lab tour
11:40	Repas plateau	11:40	Coffee Break, posters & lab tour	Ph.D. Awards Presentations
12:00		12:00		
12:20		12:20		
12:40		12:40		
13:00	Opening	13:00	Lunch @ Table d'Einstein	Lunch @ Table d'Einstein
13:20		13:20		
13:40	Invited: Brice GAUTIER	13:40		
14:00		14:00		
14:20	Nanomaterials-Nanostructuration	14:20	Energy Conversion	Energy Storage and Micro-Nano-Devices
14:40		14:40		
15:00		15:00		
15:20	Coffee Break	15:20	2022 NAME projects announcement	
15:40		15:40	Coffee Break	
16:00	Nanoscale Transport Properties I	16:00	Round table: outcomes of the GDR - NAME funded projects - Other funded projects - Other actions	Closing / Coffee Break
16:20		16:20		
		16:40		
		17:00		
		20:00	Banquet @ VATEL	



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Presentations

Invited (Monday, October 3rd 13:40-14:20)	
<i>François PIQUEMAL, Brice GAUTIER, Johannes HOFFMANN, Khaled KAJA, Andreas HERTWIG, Norbert FABRICIUS, Petr KLAPETEK, Aslan HUSNU, Bernd KAESTNER, Ayşe Gökçe OZBAY, Lukasz BOROWIK, Frederic HOUZE, Georg GRAMSE, Kamel HADDADI, Jonathan WEAVER</i>	ELENA: a European project for electrical nanoscale metrology in industry
Nanomaterials-Nanostructuration (Monday, October 3rd 14:20-15:20)	
<i>Veronique DUPUIS</i>	Chemical and Magnetic order of FeRh nanoparticles in epitaxy on SrTiO ₃ (001)
<i>Séverine GOMES, Stefan DILHAIRE, Olivier BOURGEOIS, Nolwenn FLEURENCE, Nicolas HORNY, Gilles PERNOT, Sarah DOURI, Pierre-Olivier CHAPUIS, Jean-Michel RAMPNOUX, Stéphane GRAUBY</i>	Experimental Measurement of Heat Transport Property Why is heat transport modelling required for nanometrology?
<i>Hélène DEBÉDA, Bernard PLANO, Mario MAGLIONE, U-Chan CHUNG, Catherine ELISSALDE</i>	Towards process simplification for shaping and sintering of KNN piezoelectric perovskite powders: SPS route for screen-printed thick films
Nanoscale Transport Properties I (Monday, October 3rd 16:00-17:00)	
<i>Raja SEN, Nathalie VAST, Jelena SJAKSTE</i>	Ab initio calculations of the thermoelectric phonon drag effect in semiconductor nanostructures
<i>Hani HAMZEH, Lorenzo PAULATTO, Jérôme SAINT-MARTIN, Frédéric ANIEL</i>	Ab initio full-band Monte Carlo study of phonon dynamics beyond the relaxation time approximation
<i>Alessandro CASTO, Michele DIEGO, Natalia DEL FATTI, Paolo MAIOLI, Francesco BANFI, Matteo FASANO, Francesco BELLUSSI</i>	The effect of wettability on water filling and interface heat transfer in carbon nanotubes via atomistic simulations
Invited (Tuesday, October 4th 9:00-9:40)	
<i>Manfred Kohl</i>	Miniature-Scale Energy Technologies: From Material Properties to Engineering of Functional Devices
Nanoscale Transport Properties II (Tuesday, October 4th 9:40-11:00)	
<i>Samy MERABIA, Cecilia HERRERO, Oscar GUTIERREZ-VADELA, Laurent JOLY, Ruben SANTAMARIA</i>	Thermal transport at solid-liquid interfaces: colloidal metallic nanoparticles and nanostructured gold-water interfaces coated with graphene
<i>Jelena SJAKSTE</i>	Electron-phonon coupling and ultrafast dynamics of hot carriers in semiconductors: from interpretation of photoemission experiments to transport simulations in devices
<i>Adel M'FOUKH, Jérôme SAINT-MARTIN, Philippe DOLLFUS, Marco PALA</i>	Electron-phonon interaction in van der Waals heterostructure for electronic applications
<i>Yangyu GUO, Zhongwei ZHANG, Samy MERABIA, Masahiro NOMURA, Sebastian VOLZ</i>	Thickness effect on phonon hydrodynamics in graphite thin film
Energy Conversion (Tuesday, October 4th 14:40-15:20)	
<i>Julien LEGENDRE, Pierre-Olivier CHAPUIS</i>	Impact of non-radiative losses in AlGaAs PIN junctions for near-field thermophotonic energy harvesting
<i>Sébastien HANAUER, Inès MASSIOT, Adnen MLAYAH, Sélyan BELDIOUDI, Franck CARCENAC, Jean-Baptiste DOUCET, Emmanuelle DARAN, Ihar FANIAYEU, Alexander DMITRIEV</i>	Interface photothermique à base de nanoantennes thermoplasmoniques pour la récupération d'énergie infrarouge solaire au sein de dispositifs hybrides photovoltaïques-thermoélectriques
Invited (Wednesday, October 5th 9:00-9:40)	
<i>Dario Narducci</i>	Thermoelectric Silicon: From Fundamental Physics to Real-World Applications
Thermal Management (Wednesday, October 5th 9:40-11:20)	
<i>Mauricio Gómez VILORIA, Riccardo MESSINA, Philippe BEN-ABDALLAH</i>	Heat transfer modelling in the crossover regime between conduction and radiation
<i>Hicham AIT LAASRI, Eliane BSAIBESS, Damien BRAULT, Guillaume NATAF, Fabian DELORME, Fabien GIOVANNELLI</i>	Influence of vacancies on ultra-low thermal conductivity in scheelite materials
<i>Mohamed AMARA</i>	Refroidissement radiatif des cellules solaires : modélisation opto-électro-thermique détaillée et influence de la structuration de surface
<i>Roderic CRAVERO, Martina TOMELLERI, Jessy PATERSON, Pierre NOÉ, Françoise HIPPERT, Stéphane PAILHÈS, Olivier BOURGEOIS, Valentina M. GIORDANO</i>	Understanding thermal transport in GeTe thin films and impact of nanostructuration
<i>Akash PATIL, Yannick Le Friec, Jury SANDRINI, Roberto SIMOLA, Philippe BOIVIN, Jean-Francois Robillard, Emmanuel DUBOIS</i>	Raman Thermometry Characterization of GeSbTe Based Phase Change Materials
Energy Storage and Micro-Nano-Devices (Wednesday, October 5th 14:40-16:00)	
<i>Mathieu DESCHANELS, Marc DIETRICH, Pascal GENTILE, Said SADKI, Cristina IOJOIU, Fannie ALLOIN</i>	Ammonium functionalized polysiloxane electrolyte for application in solid state micro-supercapacitors
<i>Arthur FRANCE-LANORD, Hadrien VROYLANDT, Fabio PIETRUCCHI, Benjamin ROTENBERG, A. Marco SAITTA, Mathieu SALANNE</i>	Data-driven path collective variables for atomic scale transformations
<i>Botayna BOUNOR, David BOURRIER, David PECH</i>	Novel 3D Design for RuO ₂ -based Electrochemical Micro-Capacitor
<i>Brandon FACEIRA, Yves MENESGUEN, Marie-Christine LÉPY, Aline ROUGIER</i>	X-Ray Reflectometry for electrochromic thin film characterisation: WO ₃ as an example



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Posters

Nanomaterials-Nanostructuration	
<i>Hayette SAIFI</i>	Évaluation de l'efficacité inhibitrice des nanoparticules de Fe ₃ O ₄ contre la corrosion de l'acier au carbone en milieu acide
<i>Amel BOUKHOUJETE</i>	Nanocrystalline Zinc Synthesis by Pulsed Current
Nanoscale Transport Properties	
<i>Swarnava MITRA, Raja SEN, Nathalie VAST, Jelena SIAKSTE</i>	Electron-phonon interaction in semiconductors: coupling of ab initio data for hot carriers with device-oriented simulation methods
<i>Junbum PARK, Lorenzo PAULATTO, Marco PALA, Jérôme SAINT-MARTIN</i>	Full Band Monte Carlo simulation of phonon transport in GaAs porous nanofilms
<i>Michael DE SAN FÉLICIANO, Christophe ADESSI and Samy MERABIA</i>	Atomistic modeling of interfacial thermal transport across semiconductor-metal interfaces
Energy Conversion	
<i>Amaury CHEVILLARD, Tanbir Kaur SODHI, Elie LEFEUVRE, Laurent COURAUD, Xavier LE ROUX, Laurent TRAVERS, François JULIEN, Maria TCHERNYTCHIEVA, Noelle GOGNEAU</i>	Impact de la matrice polymère dans des dispositifs à base de nanofils de GaN pour des applications de récupération d'énergie
<i>Mahdi-Amine MAMOUNI, Christophe GOUPIL, Philippe LECOEUR</i>	Simulation of the linear and nonlinear response to an electrical excitation in a thermoelectric network using Spice
<i>Guilhem ALMUNEAU, Jean-Baptiste DOUCET, Sébastien HANAUER, Inès Massiot, Adnen MLAYAH, Christophe CANDOLFI, Soufiane EL OUALID, Francis KOSIOR, Bertrand LENOIR, Philippe MASSCHELEIN, Mashiul HUQ, Slavisa JOVANOVIC, Philippe POURE, Etienne TISSERAND</i>	Systèmes hybrides photovoltaïques-thermoélectriques pour la récupération d'énergie solaire
Thermal Management	
<i>Lucile FEGER, Fabien GIOVANNELLI, Guillaume F. NATAF, Isabelle MONOT-LAFFEZ</i>	Manipulating heat flows with an electric field
<i>Thomas CHATELET</i>	Near-field thermophotonic refrigerator: a numerical study
Micro-Nano-Devices	
<i>Guéric ETESSE, Marc BESCOND</i>	A novel structure of Cooling Nano-devices: The Quantum Cascade Cooler
<i>Maxime LEVILLAYER, Sophie DUZELLIER, Thierry NUNS, Christophe INGUIMBERT, Corinne AICARDI, Stéphanie PAROLA, Alexandre ARNOULT, Guilhem ALMUNEAU, Laurent ARTOLA</i>	Etude de cellules solaires InGaAsN/GaAs en environnement radiatif spatial