

Valencia International Workshop
Cost Action FA0904

Development of new safe PNFP and Development of new strategies to identify any critical interaction of PNFP with food

Workshop WG1 / Workshop WG3 / MC meeting
2nd Round Table for Early Stage Researcher



Valencia (Spain) 8th and 9th of March 2012

Organizing Committee:

Dr. José María Lagarón Cabello, IATA-CSIC, Spain

Dr. Pablo Pardo Ibáñez, IATA-CSIC, Spain

Dr. Amparo López Rubio, IATA-CSIC, Spain

Dr. María José Ocio, IATA-CSIC, Spain

M.Sc. Marta Martínez Sanz, IATA-CSIC, Spain

M.Sc. Jesús Ambrosio Martín, IATA-CSIC, Spain

Dr. Sossio Cimmino, CNR, Italy

Dr. Clara Silvestre, CNR, Italy

Dr. Donatella Duraccio, CNR, Italy

Dr. Yasemin J. Erden, CBET, UK

Foreword:

Welcome everyone to our sunny city of Valencia to join us in what we hope will be another fruitful international workshop of the Cost Action FA0904 “Eco-sustainable food packaging based on polymer nanomaterials” chaired by Dr. Clara Silvestre. We have intended to gather people from all over Europe and other geographical areas in an attempt to present original and thought provoking talks related to the topic, which include the presentation of the grand challenges for the EU horizon 2020, potential toxicology of nanotech, updates on current nanocomposite developments for packaging, life cycle analysis (LCA) and even educational aspects of the nanotechnology. Additionally, there will be room for a number of posters to be presented during the meeting which should provide a more complete picture of what is currently being carried out by the COST members and other invited people with important say in the area. Another relevant event during the meeting is a continuation for the encounter of early stage young researchers, who will meet up again to discuss their initiatives as well as the future ahead. On the overall, the workshop constitutes another opportunity to strengthen the networking among international laboratories and research groups and will continue to serve as a launching platform for future joint collaborations in the European arena and also to establish new friendships. On behalf of the organizing committee I wish you all a pleasant stay in the warm shores of the Mediterranean, in a modern city full of accessible history, where you can enjoy our fire-related festivals while tasting delightful local gastronomy.

Dr. J.M. (Chema) Lagarón

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Workshop Agenda

Thursday, March 8th

Welcome and Introduction / Directions of development of PNFP (Chair: Clara Silvestre)

08:45 - 09:00	Welcome and Introduction <i>Amparo Querol, Jose M. Lagaron, Clara Silvestre</i>
09:00 - 09:15	COST mechanisms for funding networking of scientists <i>Mafalda Quintas</i>
09:15 - 09:45	Strategy and roadmapping for industrial technologies to address grand challenges <i>Kristiina Urpalainen</i>
09:45 - 10:15	Sustainability assessment and challenges related to development of new flexible packaging <i>Catharina Hohenthal</i>
10:15 - 10:45	Experimental nano and micro mechanics in nanomaterials characterization <i>Rumiana Kotsilkova</i>
10:45 - 11:15	Coffee Break & Poster Session

Technical Session #1: Improved biopolymers for food packaging (Chair: Antonio Vicente)

11:15 - 11:40	Research in Nanofibrillated Cellulose - Latest Achievements <i>Mika Vähä-Nissi</i>
11:40 - 12:05	Strategies for improving the dispersion of bacterial cellulose nanowhiskers in PLA melt compounded nanocomposites with interest in food packaging applications <i>Marta Martinez</i>
12:05 - 12:30	Barrier coatings deposited by PECVD and RF sputtering for food packaging applications <i>Hynek Biederman</i>
12:30 - 13:30	Lunch Break
13:30 - 14:00	Some aspects of the thermal decomposition of the green starch/poly(vinyl alcohol)/montmorillonite nanocomposites. I) Influence of the nanoparticle type <i>Cornelia Vasile</i>
14:00 - 14:30	Influence of the nanoparticle content on the thermal decomposition of some bionanocomposites as materials for food packaging <i>Manuela-Tatiana Nistor</i>
14:30 - 15:00	PET/CaCO ₃ nanocomposites: from matrix/filler interactions to macroscopic properties <i>Roberto Avolio</i>
15:00 - 15:30	Packaging, nanoparticles and plankton: an overview <i>Geoffrey Hunt</i>

Parallel Meetings

15:30 - 19:00	MC MEETING (Clara Silvestre)	2nd Round Table for Early Stage Researchers (D. Duraccio/Y. Erden/M. Martínez/P. Pardo)
21:00	Workshop Dinner	

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Friday, March 9th

Technical session #2: Improved biopolymers for food packaging II
(Chair: *Mika Vähä-Nissi*)

09:00 - 09:25	Incorporation of functional compounds in edible packaging materials for food applications: influence in materials' properties <i>Antonio Vicente</i>
09:25 - 09:55	Layered double hydroxides and their potential role in future PNFP <i>David Plackett</i>
09:55 - 10:20	Contributions of nanotechnology to DNA analysis. An example of multidisciplinary approach with applications on the food sector <i>Marta Prado</i>
10:20 - 10:45	Physicochemical and functional characterization of different pNIPA nanohydrogels for active packaging purposes <i>Lorenzo Pastrana</i>
10:45 - 11:15	Coffee Break & Poster Session

Technical session #3: LCA and Food safety
(Chair: *Marek Kozłowski*)

11:15 - 11:40	On the suitability of Thermal Analysis for Monitoring the Degradation State of Polylactide <i>Laura Santoja</i>
11:40 - 12:05	Biocomposites vs conventional polymers: LCA in practice <i>Andrzej Iwańczuk</i>
12:05 - 12:30	Nanomedicine: Evaluation of toxicity induced by nanomaterials <i>África González</i>
12:30 - 13:30	Lunch Break
13:30 - 13:55	Development of biodegradable packaging for shelf-life fatty aliments <i>Nuria López</i>
13:55 - 14:20	Polymeric nanocomposites based on TiO ₂ with antimicrobial properties <i>Marta Fernandez-García</i>
14:20 - 14:45	Antiviral food packaging in food industry <i>Gloria Sánchez</i>
14:45 - 15:10	Improvement strategies of starch film properties. Addition of lipids or other hydrocolloids <i>Maria José Fabra</i>
15:10 - 15:35	NanoŠmano vs. wetPONG . Experiences in outreach and education at the bionanoInterface <i>Marc Dusseiller</i>
15:35 - 16:00	Poster Session

Short Term Scientific Missions Reports & Workshop Closing
(Chair: *Donatella Duraccio*)

16:00 - 16:45	Short Term Scientific Mission Reports: <i>Aneta Vasiljevik, Antonella Marra, Bogdanel Munteanu</i>
16:45 - 17:15	Soarnol NC7003: A High Barrier Novel Food Packaging Nanocomposite Grade Final Remarks and Closing <i>Jose M. Lagaron</i>

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Useful information

Location of Hotels

Hotel	Address	Website or booking email address
Las arenas 5 stars	Eugenia Viñes, 22 +34 963120600	http://www.hotelvalencialasarenas.com/
Zenit Valencia 4 stars	Bailen, 8 +34 963529000	http://www.zenithoteles.com
Vincci Lys 4 stars	Martinez Cubells, 5 +34 963509550	lys@vincchoteles.com
Husa Dimar 4 stars	Gran Via Marques del Turia, 80 +34 963951030	www.hotel-dimar.com
Petit Palace Germanias 3 stars	Sueca, 14 +34 963513638	germanias@hthoteles.com
SH Inglés 3 stars	Marques de dos aguas, 6 +34 963516426	http://www.inglesboutique.com
NH Jardines del Turia 3 stars	Pintor Velazquez, s/n +34 963905460	nhjardinesdelturia@nh-hotels.com
Venecia 2 stars	Plaza Ayuntamiento, 3 +34 963524267	reservas@hotelvenecia.com

Hotel locations and points of interest:

<http://g.co/maps/h5xtc>

Location of the Venue

The IATA is situated on the outskirts of **Valencia** (Spain) and has good transport connections.

Approximate distances:

- 7 km from the city centre (Main train station and Town Hall).
- 6 km from the airport (Manises).
- 3 km from the Congress Centre (Palacio de Congresos).
- 10 km from the City of Arts and Sciences leisure centre.

Whilst physically located in the municipality of Paterna, the nearby Valencia University science campus and Valencian Television station, both geographically situated in Burjassot, are good landmarks.

Means of access:

Metro line 4 (Tram service)

Take the destination *Mas del Rosari* and get off at either *TVV* or *Santa Gemma*. The institute is just a short walk away from either stop. Metro frequency is every 20 minutes all year round from 6.00 h till 23.00 h.

Please note that not all trams go to *Mas del Rosari*. Some terminate at the University of Valencia science campus (*V. Andrés Estelles*) and others deviate to the Valencia Trade Fair site (*Feria*) or *Ll. Llarga-Terramelar*.

Connections

'Transbordo' tickets are available which permit the mixed use of bus, metro and Tram to get to a destination. The Tram (line 4) coincides with Metro line 1 at *Empalme* and with Metro line 3 at *Benimaclet*. Bus and metro lines coincide at various points on their respective routes.

Bus route 63

Take the destination *Facultades* and get off at *Facultad de Farmacia*. Either take a 10 minute walk or take the Tram (line 4) from *V. Andrés Estelles*. This line only operates during the university term time. Bus frequency is every 5-20 minutes depending on the time of day - displayed on information boards at bus st

Taxi

Request "Televisión Valenciana, entrada trasera". Upon approaching the television station indicate a red-brick building about 200 metres further down the road which is the IATA

From the main train station (Estación del Norte)

To your left when facing the direction of arrival, there is a taxi rank outside the main station building.

Bus route 63 also starts on the road running parallel to the station.

A Metro stop *Xativa* (Metro lines 3 and 5) is located in front of the main station entrance. Take the Metro to the next stop, *Angel Guimerá*. Change to Metro line 1 and go to *Emplame* (the 4th stop) where you make a final change to the Tram (Metro line 4).

Airport arrivals

The best option is to take a taxi direct to the institute. Bus and Metro (lines 3 and 5) services also operate to the city centre.

By car

From the 'Nuevo Centro' shopping centre located near the old river bed, take 'Avenida Pio XII' northwards leaving the city. Follow the main flow of traffic through an underpass and cross two large roundabouts (the second of which is located next to the 'Palacio de Congresos') until you are on the motorway heading out of the city (Pista de Ademuz). Come off the motorway at Exit 4 (Paterna, Burjassot) bearing right where the exit bifurcates following signs for 'Burjassot', 'Centre TVV', 'Fira de Mostres' and 'Universitat'. The road descends to a roundabout where you take the 4th exit to pass behind the Valencian Television station ('Canal 9' and 'Punt 2'). The IATA is the red-brick building about 200 metres ahead slightly to the right.

Google maps link

<http://g.co/maps/u3rcu>

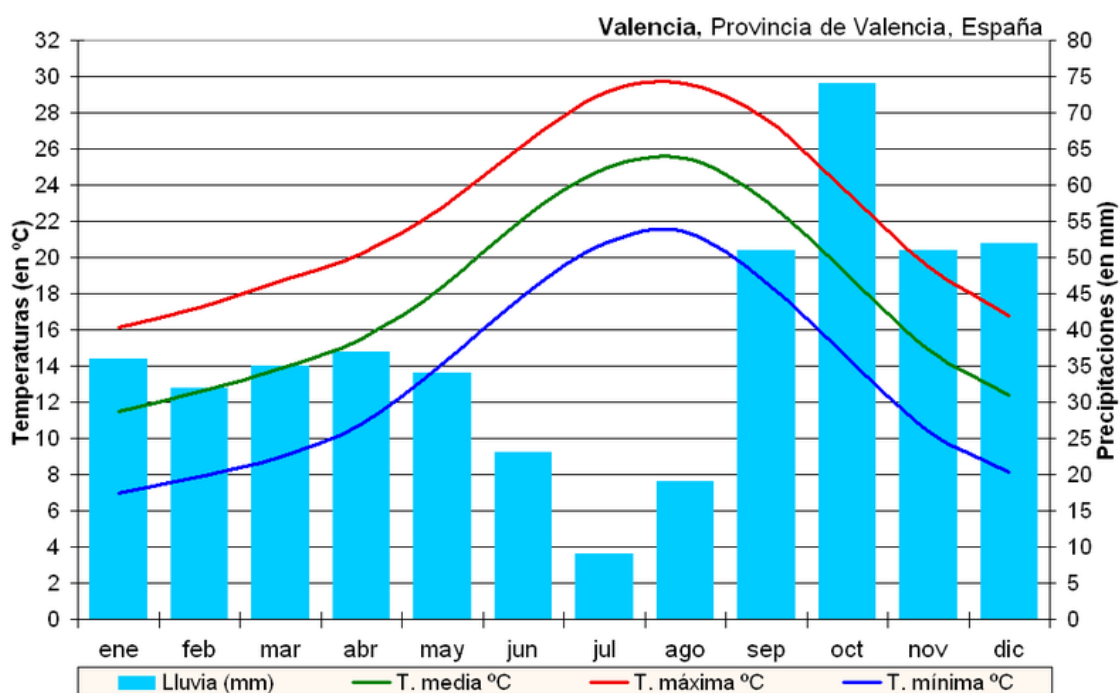
UTM Coordinates

x: 721542.11
y: 4377256.72



Main entrance of Institute of Agrochemistry and Food Technology (IATA, CSIC)

Weather in Valencia



Annual climogram for the city of Valencia. Red (upper), green (mid) and blue (bottom) lines correspond to maximum, average and minimum temperatures, respectively, with scale in left vertical axis. Histogram indicates the rainfall, in right vertical axis, in mm. (Source: Wikimedia Commons)

Links of interest

Tourism in Valencia. Information about accommodation, transportation, restaurants, cultural activities, museums, etc.

<http://www.turisvalencia.es/home.aspx>

Metro and tram system in Valencia

http://www.metrovalencia.es/page.php?idioma=_en

Bus system in Valencia

<http://www.emtvalencia.es/ciudadano/index.php?lang=en>

Public bikes in Valencia

<http://www.valenbisi.com/How-does-it-work>

Map of Metro System

