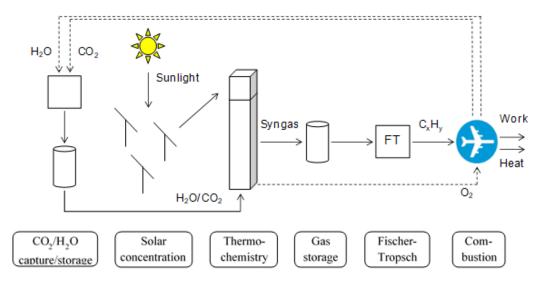




H2020 SUN-to-LIQUID Summer School



Date: Venue: June, 25th-29th Classroom 110 Building "Aulario I" Campus of Mostoles Rey Juan Carlos University C/ Tulipan s/n. Móstoles 28933, Spain

1. Summary

In the current situation of environmental stress caused by the global warming, solar fuels arise as a key alternative to conventional fossil fuels. Solar fuel production is truly scalable as less than 1% of the arid land is sufficient to meet the global fuel demand. Adverse effects due to direct or indirect land use change are very low compared to conventional biofuel pathways. Furthermore, low water consumption is a distinct feature of solar thermochemical fuel production. This course will present the main features of the different processes to obtain them, addressing different aspects such as technical, economic, environmental...

The course is mainly oriented to MSc and PhD students who want to achieve a higher degree of specialisation in this field, but also to other students with a specific interest in these topics and a limited amount of time. It is organized by the research team of the "SUNlight-to-LIQUID: Integrated solar-thermochemical synthesis of liquid hydrocarbon fuel" (SUN-to-LIQUID) project.

Didactical methods used in the summer school include lectures given by senior researchers and individual and group exercises.





2. Course details

Course language: English

Number of participants: 25

Total hours: 20 (theoretical and practicum). This will be confirmed by a certificate of participation, but it will not have ECTS equivalents

Laptop is required

WiFi provided

3. Selection of participants

Registration fee for the course is: 50 € (includes documentation and lunches)

The applicants should upload all the requested information (letter of interest and CV) in https://goo.gl/forms/o9Ulc7oeol1J3tGm2

Due to places limitation, the following selection criteria will be applied: (i) CV, (ii) Letter of interest, (iii) Gender balance, (iv) Country balance

4. Important dates

15th May 2018 Pre-registration
25th May 2018 Announcement of participants accepted
8th June 2018 Registration and Payment of the registration fee

5. Organizing committee

The course is organized by IMDEA Energy within the framework of the SUN-to-LIQUID project (Contract 654408)

Organisers:	Scientific Secretariat:
Prof. Javier Dufour	Dr. José Luis Gálvez
Dr. Diego Iribarren	Tel. +34 91 737 11 18
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With the support of









6. Agenda

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		Sun-to-fuel processes: CSP	Sun-to-fuel alternative processes	Techno-economic and environmental assessment	Impact of alternative fuels in the EU
10:00-11:00		Manuel Romero IMDEA Energy Institute	Victor de la Peña IMDEA Energy Institute	Diego Iribarren IMDEA Energy Institute	Samuele Furfari Université Libre de Bruxelles
11:00-11:30		Coffee break	Coffee break	Coffee break	Coffee break
11:30-13:30		Stefan Zoller <i>ETH Zürich</i> Andreas Sizmann <i>Bauhaus Luftfahrt e.V.</i>	Paul Lucchese CEA Rufino Navarro ICP-CSIC	Christoph Falter Bauhaus Luftfahrt e.V. Natalia Caldés CIEMAT	Farewell Juan Antonio Melero Rey Juan Carlos Univ. Javier Dufour Director of summer school
13:30-15:00		Lunch	Lunch	Lunch	
		Practicum			
15:00-18:00		SUN-to-LIQUID experimental installation	Photoactivated processes lab	Process simulation	
18:00-19:00	Registration and Welcome Reception				





7. Logistics

Accommodation

IMDEA Energy recommends the following hotels:

Hotel Ciudad de Móstoles

Location: https://goo.gl/maps/YYP3PSkDcxD2

Hotel is 10 minutes walk away from IMDEA Energy premises, 8 minutes walk from the train station El Soto and 20 minutes walk from the metro station Universidad Rey Juan Carlos. Booking can be made by phone or per e-mail. Please provide the booking reference IMDEA Energy to benefit from IMDEA Energy reduced rates: 65€ for a single room, breakfast and VAT included 75€ for a double room, breakfast and VAT included

Hotel Ciudad De Móstoles

Ctra. Móstoles-Villaviciosa de Odón Km. 0,200; 28931, Móstoles, Madrid Tel: +34 916 140 669, Email: <u>recepcion@h-ciudadmostoles.com</u> <u>http://www.hotelciudaddemostoles.es/en</u>

Sercotel Spa La Princesa

Carretera M-506 Km. 9, salida Móstoles centro, 28922 Móstoles, Spain Price about 65 Euro per night (breakfast not included)

Hotel is about 1.9 km from the train station renfe Mostoles central. From there you may take a train to Mostoles El Soto station to IMDEA Energy Location: <u>https://goo.gl/maps/spQkrKbbSu92</u>

Hotel Ibis budget Madrid Alcorcón Móstoles (cheapest option)

Price about 43 Euro per night (breakfast not included)

Location: https://goo.gl/maps/HB3poLtgmcS2

Hotel is about 1.2 km from train Station of Mostoles Central. From there you may take a train to Mostoles El Soto station to visit IMDEA Energy.

https://goo.gl/QAozZb

Hotel website: http://www.ibis.com/gb/hotel-3201-ibis-budget-madrid-alcorcon-mostoles/index.shtml

Hotel NH Alcorcon (another option)

Prices between 60-80 Euro per night.

Location: https://goo.gl/maps/kx18miARE5F2

From hotel you can take metro at station "Parque Oeste" and get out at the next stop "Universidad Rey Juan Carlos". From University just cross the campus and the bridge to IMDEA Energy. See link with the route:

https://goo.gl/maps/eXriQSv7nu92

Hotel website :

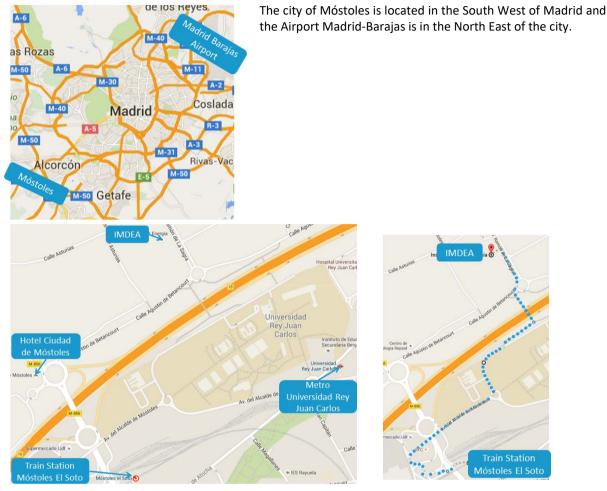
https://goo.gl/N43bpS

In case you would prefer staying in Madrid downtown, you will be able to easily reach IMDEA Energy either by metro or by train (see information below). Please count with about 30 minutes journey each way.





Directions



IMDEA Energy premises are about 15 to 20 minutes walking distance from the regional train station Móstoles El Soto. It is recommended to **follow a path via the Rey Juan Carlos University Campus** as shown on the map right.

By taxi

- From the airport to IMDEA Energy or Hotel Ciudad de Móstoles: count with 30 minutes and between 50-60€
- From Madrid centre to IMDEA Energy or Hotel Ciudad de Móstoles: count with 25 minutes and between 25-30€

By public transport

- From the airport, it is recommended to take the regional train called "Cercanias" and departing from terminal 4 at Madrid Barajas. There is a bus connection between terminal 2 and terminal 4.
- In terminal 4, you will have to buy a train ticket to Móstoles El Soto.
- From the terminal 4, take the line C1 heading to Atocha Railway Station and get off at Atocha Station.
- From Atocha Station, take the line C5 heading to Móstoles EL Soto, which is the final station. Get off there.
- It will take you ca. 1:10 hour and cost around 2.7 €. The line C1 to Atocha departs every 30 minutes and the line C5 to Móstoles El Soto departs every 10 minutes.
- Timetables for regional train can be consulted <u>here</u>.

Alternative route:

- Atocha Station can be reached with the Express bus airport departing from the airport every 15-20 minutes. The journey to Atocha Station by bus takes ca. 30 minutes depending on the traffic. You will need to purchase separate ticket for the train and the regional train.
- Further information on the Express bus airport can be found <u>here</u>.
- From Atocha Station to Móstoles El Soto, please follow instructions above.