

IAU Symposium 280 "The Molecular Universe"

(May 30 - June 3, 2011, Toledo, Spain)

FINAL PROGRAM

Sunday May 29

18:00h - 21:00 Registration & Welcome reception at the Sabatini Building

Monday May 30

08:15	Registration	
	Put up posters session 1	
08:40 - 09:00	E.F. van Dishoeck	Opening and welcome
	J. Cernicharo	Logistical matters
09:00 - 09:30	A.G.G.M. Tielens	The molecular universe: overview
Star Formation I (Chairs: E.F. van Dishoeck (09:30-10:45); S.-Y. Liu (11:15-11:55))		
09:30 - 09:55	P. Caselli	Observational studies of pre-stellar cores and IRDCs (I)
09:55 - 10:20	J. Jorgensen	Interferometric studies of low-mass protostars (I)
10:20 - 10:45	Y. Aikawa	Hydrodynamical-chemical models from prestellar cores to protostellar cores (I)
10:45 - 11:15	Coffee/tea	
11:15 - 11:30	J.-E. Lee	The D/H ratio of water ice in star formation ©
11:30 - 11:55	R. Bachiller	Molecules in outflows (I)
Herschel hot results 1 (Chair: G. Pilbratt)		
11:55 - 12:05	G. Pilbratt	Herschel introduction
12:05 - 12:20	B. Lefloch	Molecules in protostellar shocks: the CHESSE view on L1157-B1 ©
12:20 - 12:35	N. Crockett	HEXOS: analysis of the HIFI 1.2 THz wide spectral survey toward Orion KL ©
12:35 - 12:50	L. Kristensen	WISHes coming true: low-mass protostars as chemical fountains ©
12:50 - 13:05	A. Fuente	The chemistry of water in the UC HII region MonR2 ©
13:05 - 15:00	Lunch + AI Fresco discussions	
Solar System Objects (Chairs: S. Charnley (15:00-16:50); G. Muñoz-Caro (16:50-17:40))		
15:00 - 15:40	J. Lunine	Chemistry of the Solar System (R)
15:40 - 15:55	D.E. Jennings	The Atmospheres of Titan and Saturn in the IR from Cassini: The Interplay Between Observation and Lab Studies ©
15:55 - 16:20	D. Bockelee-Morvan	Recent results on the composition of comets (I)
16:20 - 16:35	D. Lis	Herschel observations of comet Hartley 2: D/H in a Jupiter family comet ©
16:35 - 16:50	M. Hogerheijde	Detecting the cold water reservoir in a protoplanetary disk ©
16:50 - 17:15	S. Sandford	The Power of Sample Return Missions - Stardust and Hayabusa (I)
17:15 - 17:40	C. Alexander	Organics in Meteorites - solar or interstellar? (I)
17:40 - 20:00	Poster session I con tapas (Poster presenters at their poster)	
20:15-	Buses back to hotels	

Tuesday May 31

Evolved Stars (Chair: D. Field)

08:45 - 09:10	S. Kwok	Molecular evolution from AGB stars to planetary nebulae (I)
09:10 - 09:35	J. Cernicharo	Line surveys of evolved stars (I)
09:35 - 09:50	M. Guélin	Time dependent anion chemistry in the CSE IRC+10216 ©
09:50 - 10:15	I. Cherchneff	Molecules in supernova ejecta (I)
10:15 - 10:35	J. Cami	Fullerenes in circumstellar and interstellar environments (I)
10:35 - 10:50	C. Contreras	Formation and destruction processes of carbonaceous interstellar dust ©
10:50 - 11:15	Coffee/tea	

Star Formation and Complex Molecules (Chair: E. Herbst)

11:15 - 11:40	N. Sakai	Observations of Complex Molecules in Low-Mass Protostars (I)
11:40 - 12:05	K. Oberg	Ices in starless and star-forming cores (I)
12:05 - 12:30	J. Martín-Pintado	GC clouds and complex molecules (I)
12:30 - 12:55	S. Widicus	Models of hot cores with complex molecules (I)
12:55 - 13:10	A.I. Vasyunin	New chemical models for new era observations: a multiphase Monte Carlo model of gas-grain chemistry ©
13:15 - 15:15	Lunch + AI Fresco discussions	

Take down posters session 1 - Put up posters session 2

Basic molecular processes I (Chair: I. Sims)

15:15 - 15:55	I. Smith	Gas-Phase Processes: rate coefficients, temperature dependences, and reaction products (R)
15:55 - 16:20	S. Klippenstein	Theory of Low Temperature Reactions (I)
16:20 - 16:45	V. Bierbaum	Anions in space and in the laboratory (I)
16:45 - 17:15	Coffee/tea	

Herschel hot results 2 (Chair: J.R. Pardo)

17:15 - 17:30	P. Goldsmith	Herschel oxygen project observations of O₂ in Orion ©
17:30 - 17:45	L. Decin	Chemical enrichment of the ISM through the mass loss of evolved stars ©
17:45 - 18:00	W.F. Thi	Modeling the gas and dust of protoplanetary disks in the Herschel-GASPS sample ©
18:00 - 18:15	S.C. Madden	Where is the molecular gas in low metallicity dwarf galaxies? ©
18:15 - 18:30	K.M. Menten	An interferometric 270-355 GHz spectral line survey of the red supergiant VY CMa ©
18:30 - 19:00	AI Fresco discussions	
19:00-	Buses back to hotels	

Wednesday June 1

Protoplanetary disks (Chair: I. Kamp)

08:45 - 09:10	A. Dutrey	Millimeter/submm observations of molecules in disks (I)
09:10 - 09:25	E. Bergin	DISCS: a disk imaging survey of chemistry with the SMA ©
09:25 - 09:50	D. Semenov	Chemical models of protoplanetary disks (I)
09:50 - 10:15	C. Salyk	IR observational studies of gas in disks (I)
10:15 - 10:30	K. France	The Far-UV molecular spectrum of protoplanetary disks: new views from Hubble ©
10:30 - 10:55	R. Visser	Chemical history of molecules in disks (I)
10:55 - 11:25		Coffee/tea

Basic molecular processes II (Chair: L. Hornekaer)

11:25 - 12:05	H. Linnartz	Unlocking the (solid state) chemistry of the heavens (R)
12:05 - 12:30	F. Dulieu	Water ice formation and the o/p ratio (I)
12:30 - 12:55	C. Jaeger	Solid-state spectroscopy (I)
12:55 - 13:10	J.L. Lemaire	Competing mechanisms in the formation of H ₂ on silicates in conditions pertinent to the ISM ©
13:15 - 14:45		Lunch
14:45 - 17:15		Poster session 2 con café (Poster presenters at their poster)
18:00 -		Buses back to hotels
20:00 -		Classical Concert at Hotel Beatriz Auditorium
21:15 -		Conference dinner at Hotel Beatriz

Thursday June 2

Extragalactic chemistry (Chair: S. García-Burillo)

Take down posters session 2 - Put up posters session 3

08:50 - 09:15	S. Glover	The Chemistry of the Early Universe (I)
09:15 - 09:30	A. Sternberg	Molecular clouds at the reionization epoch ©
09:30 - 09:55	S. Muller	Absorption line surveys at intermediate redshift (I)
09:55 - 10:20	S. Martin	Extragalactic line surveys (I)
10:20 - 10:45	K. Kraiberg-Knudsen	Observations of molecules at high redshift (I)
10:45 - 11:10	F. van der Tak	Molecular data and radiative transfer (I)
11:10 - 11:40		Coffee/tea

Exoplanets and their atmospheres (Chair: G. Blake)

11:40 - 12:05	G. Tinetti	Exoplanetary atmosphere observations (I)
12:05 - 12:30	E. Hebrard	Exoplanetary atmosphere models (I)
12:30 - 12:45	C. Walsh	The chemistry of exoplanet atmospheres ©
12:45 - 13:10	L. Kaltenegger	Biomarkers of habitable worlds - Super-Earths and Earths (I)
13:10 - 15:00		Lunch + AI Fresco discussions

Tools of analysis and databases (Chair: J. Pearson)

15:00 - 15:05	E. Herbst	In memoriam G. Winnewisser
15:05 - 15:30	F. de Lucia	How Can We Use Complete Experimental Catalogs in the Complex Spectra Limit? (I)
15:30 - 15:55	P. Schilke	Tools for analysis of spectral surveys (I)
15:55 - 16:10	S. Takano	Nobeyama 45m telescope legacy project: Line survey ©
16:10 - 16:25	T.J. Millar	Overview of data bases
16:25 - 17:30		Panel 'On to ALMA' Chair: S. Yamamoto; Panel members: G. Blake, G. Garay, M. Guelin, K. Menten
17:30 - 20:00		Poster session 3 con tapas (Poster presenters at their poster) Database demonstrations
20:15 -		Buses back to hotels

Friday June 3

Diffuse clouds and PDRs (Chairs: E. Roueff (08:45-10:45); P. de Vicente (11:10-11:50))

- 08:45 - 09:10 E. Peeters **The PAH hypothesis after 25 years (I)**
09:10 - 09:25 J. Thrower **Laboratory investigations of the formation of superhydrogenated PAHs ©**
09:25 - 09:50 N. Cox **The diffuse interstellar bands and their carriers: The mystery unfolds? (I)**
09:50 - 10:05 R. Raghunandan **H₂C₃ - a diffuse interstellar band carrier ©**
10:05 - 10:20 G. Rouille **Spectroscopy of PAHs with carbon side chains ©**
10:20 - 10:45 R. Meijerink **PDRs and XDRs (I)**
10:45 - 11:10 Coffee/tea + light snacks
11:10 - 11:35 E. Falgarone **Turbulence in diffuse clouds (I)**
11:35 - 11:50 T.R. Geballe **Exploring the central molecular zone with H₃⁺ and CO ©**

Herschel hot results 3 (Chair: D. Johnstone)

- 11:50 - 12:05 J.R. Goicoechea **First detection of far-IR OH emission towards the Orion Bar PDR ©**
12:05 - 12:25 T.G. Phillips **The ubiquitous nature of HF ©**
12:25 - 12:40 D. Neufeld **Probing the diffuse ISM with hydroxyl cations and water cations ©**
12:40 - 12:55 W.D. Langer **Carbon chemistry in transitional clouds from the GOT C⁺ Survey of CII 158 micron Emission in the Galactic Plane ©**
12:55 - 13:10 B. Mookerjea **Herschel observations of C₃ in star-forming regions ©**

SUMMARY AND CLOSING

- 13:10 - 13:40 John Black **Conference summary**
13:40 - 13:50 **Conference closing**
13:50 - 15:15 Light lunch and **Take down Posters session 3**

14:30 - 16:00 **Buses to Madrid Airport**

Notes:

(R) = Review Talk (30 + 10 min)
(I) = Invited Talk (20 + 5 min)
© = Contributed Talk (12 + 3 min)

LOC assistance with presentations: P. de Vicente, T. Bell and B. Godard