

Welcome
to
ISWA



Welcome to the International Symposium and Workshop on Astrochemistry - ISWA

Prof. Dr. Sergio Pilling
(ISWA chairman)

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Timetable:

	3/jul (sun)	4/jul (mon)	5/jul (tue)	6/jul (wed)	7/jul (thu)	8/jul (fri)
8:30 - 9:20		Conference 2 (Nuevo)	Talk 16 (Pilling)	Conference #6 (Lepine)	Talk 33 (Mendoza)	Conference #9 (Inostroza)
9:20- 9:40		Talk 1 (Rocha)	WORKSHOP EXPERIMENTAL	Talk:18 (Arias)	WORKSHOP OBSERVATIONAL	Talk 34 (Magalhães)
9:40-10:00		Talk 2 (Ortiz)	[Equipments, research proposals LNLS, software, techniques, data reduction, ...]	Talk19 (Pinotti)	[Proposal to ALMA, LLAMA, data reduction, software, techniques, ...]	Talk35 (Aleman)
10:00-10:20		Talk 3 (Baptista)	(Pilling; Rocha; Galante)	Talk20 (Canelo)	(Mendoza; Gama)	Talk 36 (Arapiraca)
10:20-11:00		<i>Coffee with Posters</i>	<i>Coffee with Posters</i>	<i>Coffee with Posters</i>	<i>Coffee with Posters</i>	<i>Coffee with Posters</i>
11:00-11:20		Talk4 (Andrade)	WORKSHOP EXP.	Talk21 (Woitke)	WORKSHOP OBSERV.	Talk37 (Cerini)
11:20-11:40		Talk 5 (Barreto)		Talk22 (de la Rezza)		Talk38 (Parikka)
11:40-12:00		Talk 6 (Arumainayagam)		Talk23 (Monfredini)		Talk39 (Esmaili)
12:00-12:20		Talk 7 (Vinogradoff)		Talk24 (Jinhua He)		Talk40 (Bonfim)
12:20-14:00		<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
14:00-14:20	Registration and check-in	Talk 8 (Kuan)	Official conference photo VISIT TO LNLS/CNPEM Bus to LNLS	Talk25 (Marshall)	Free afternoon for Scientific discussions and working groups.	Check-out
14:20-14:40		Talk 9 (Fornazier)	Talk 17 (Galante)	Talk26 (Ribeiro)		
14:40-15:00		Talk 10 (Vignoli Muniz)	Guided visit to LNLS/CNPEM	Talk27 (Gama)		
15:00-15:20		Talk11 (Chang)		Talk28 (Quénard)		
15:20:16:10		Conference 3 (Janot-Pacheco)		Conference #7 (Lefloch)		
16:10-16:40		<i>Coffee with Posters</i>	<i>Coffee Break at LNLS</i>	<i>Coffee with Posters</i>		
16:40-17:00		Talk 12 (Micelotta)	Guided visit to SIRIUS/CNPEM	Talk29 (Machaieie)		
17:00-17:20		Talk13 (de Barros)		Talk30 (Almeida)		
17:20-17:40		Talk 14 (Blasberger)		Talk31 (Boice)		
17:40-18:00		Welcome and brief overview of Brazilian Astrochemistry (Pilling)	Bus to hotel	Talk32 (Brouillet)		
18:00-19:00	Open conference (Tielens)	Conference 4 (Boduch)	Conference 5 (Mason)	Conference #8 (da Silveira)		
19:00-21:00	<i>Dinner</i>	<i>Conference Dinner (Festa Juliana)</i>	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>	
21:00-22:00						

Symposium overview:

78 participants (half from overseas; **15 countries**)

9 conferences; 40 talks; 2 workshops (+10 talks) and 25 posters

Guided tour to LNLS/CNPEM and Sirius/CNPEN (Experimental Astrochemistry)

Website statistics (curiosity)

INTERNATIONAL SYMPOSIUM AND WORKSHOP ON ASTROCHEMISTRY

Understanding the extraterrestrial molecular complexity through experiments, observations and models

July 3-8, 2016 - Campinas, SP - Brazil

- Home
- Rationale
- Registration
- Abstracts
- Program
- Participants
- Dates
- Venue
- Accommodation
- Transportation
- LOC
- SOC
- Contact
- Poster
- Sponsors

Welcome

We are happy to announce the International Symposium and Workshop on Astrochemistry - ISWA. This event will take place from July 3rd to 8th, 2016 at the Hotel Fazenda Solar das Andorinhas in Campinas-SP, Brazil.

The main goal of this event is get together experimentalists, observers and modelists interested to contribute to the progress of the knowledge in astrochemistry. Additionally, during the symposium, we will have two hands-on workshops: one focusing on experimental astrochemistry and other focusing on observations. The hands-on workshop will have activities about the proposal submissions to the LNLs (Brazilian Synchrotron Light Laboratory) laboratory, data reduction and to LLAMA (Large-Lin Angle Millimeter Array) and ALMA (Atacama Large Millimeter Array) radio observations. During this meeting we will also have an opportunity to follow a real astrochemical experiment (in real time) at one of the beam lines of the LNLs that simulates the interaction between UV and soft X-rays with astrophysical ice analogues.

The Symposium will be held at the Historic Farm-Hotel "Solar das Andorinhas" located in Campinas, SP, Brazil (near the Brazilian Synchrotron lab). The participants of the meeting will have a thematic conference dinner with a typical Brazilian winter party called "Festa Julina" with includes boate and typical drinks and foods. www.hotelfazendasolarandorinhas.com/ (See in Google maps)

Opening Conference

A.G.G.M. Tielens (Leiden Univ.) - The Molecular Universe

Invited speakers

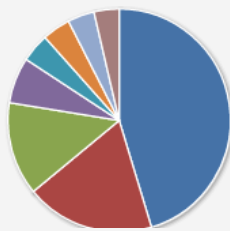
- Bertrand Lefloch (IPAG, France)
- Cecilia Coccarelli (IPAG, France)
- Elisabetta R. Micciotta (Helsinki Univ., Finland)
- Enzo F. de Silveira (PUC-Rio)
- Farid Salama (NASA Ames, USA)
- Harold L. van Marle (Leiden Univ., Netherlands)
- Jacques Lepine (IAG-USP, Brazil)
- Kimata Acharaya (Virginia Univ., USA)
- Michel Nuevo (NASA Ames, USA)
- Nigel Mason (Open Univ., United Kingdom)
- Peter Woitke (St. Andrews Univ., United Kingdom)
- Philippe Boechat (GANIL-CMAD, France)
- Sun Kwok (HK Univ., China)
- Yu-Jehng Kuan (Nat. Taiwan Normal Univ., Taiwan)

vis today
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vis today



Geolocation

April 2015 - July 2016



- Brazil: 2,492
- United States: 1,029
- France: 744
- India: 367
- Netherlands: 229
- Colombia: 225
- Germany: 213
- United Kingdom: 201

2015

2016

Rank		New Vis.	Visitors	Pages V.	Ppv	Tpp	bounce
1	Brazil	1,083	2,492	3,376	1.3	10'55"	84.1% 34.4%
2	United States	636	1,029	1,278	1.2	17'12"	88.9% 14.2%
3	France	398	744	864	1.1	11'12"	87.9% 10.2%
4	India	209	367	427	1.1	17'3"	86.1% 5%
5	Netherlands	145	229	254	1.1	2'48"	90.8% 3.1%
6	Colombia	134	225	284	1.2	6'31"	82.6% 3.1%
7	Germany	149	213	231	1	8'11"	92% 2.9%
8	United Kingdom	118	201	226	1.1	20'42"	90.5% 2.7%
9	Chile	98	200	240	1.2	16'	86% 2.7%
10	Argentina	109	191	217	1.1	20'32"	87.9% 2.6%
11	China	50	168	191	1.1	16'12"	86.3% 2.3%
12	Mexico	84	166	184	1.1	10'15"	92.1% 2.2%
13	Canada	56	89	115	1.2	7'1"	82% 1.2%
14	Spain	53	74	91	1.2	7'33"	82.4% 1%
15	Japan	59	72	90	1.2	10'30"	86.1% 0.9%
16	Taiwan	39	67	76	1.1	6'47"	92.5% 0.9%
17	Italy	58	66	79	1.1	18'18"	87.8% 0.9%
18	Israel	23	52	62	1.1	14'48"	86.5% 0.7%
19	Turkey	42	49	52	1	2'46"	91.8% 0.6%
20	Korea; Republic of	20	41	48	1.1	12'19"	90.2% 0.5%
21	Russian Federation	34	38	40	1	13'24"	97.3% 0.5%
22	Sweden	21	34	38	1.1	13'16"	88.2% 0.4%

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General stats

Total page views **8,714**

Total visitors **7,114**

Page views per visit **1.22**

Last hits time: **18:09:33 1 July**

Sponsors



Very brief overview of Brazilian Astrochemistry

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Pierre Kaufman
(Mackenzie)



Jacques Iepine
(USP)



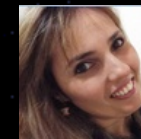
Heloisa Boechat –Roberty (UFRJ)
1st experimental thesis (gas phase with electrons)



Sergio Pilling (UNIVAP)
1st experimental thesis (gas phase with X-rays)
LNLS



Diana Andrade (UFJR)
1st experimental thesis (solid phase with electrons)



Joint to ALMA observatories

Zulema Abraham
(USP)



Walter Maciel
(USP)



Lots of good scientists here too !!!

Exp groups:
UFBA
VALINHOS/USP



GMT

Brazilian Early Radioastronomy (SP)

Experimental Astrochemistry boom (RJ, SP)!!

1970 1973 1974 1980 ... 1990 2003 2006 2008 2009 2010 2012 2016 Timeline

ROI first light (13.7m)
22 and 44 GHz



Patan Deen Singh
(IAG/USP)
dust and comets



Sayd Codina
(IAG/USP) – dust



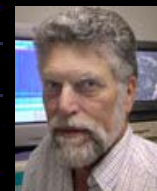
Amaury de Almeida
(IAG/USP) - Comets



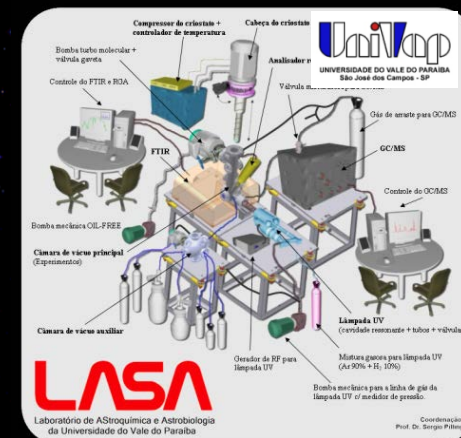
Experiments at
LNLS and LIFE/UFRJ



Enio F. da Silveira
(PUC-Rio)
VDG accelerator + FTIR
(solid phase experiments)

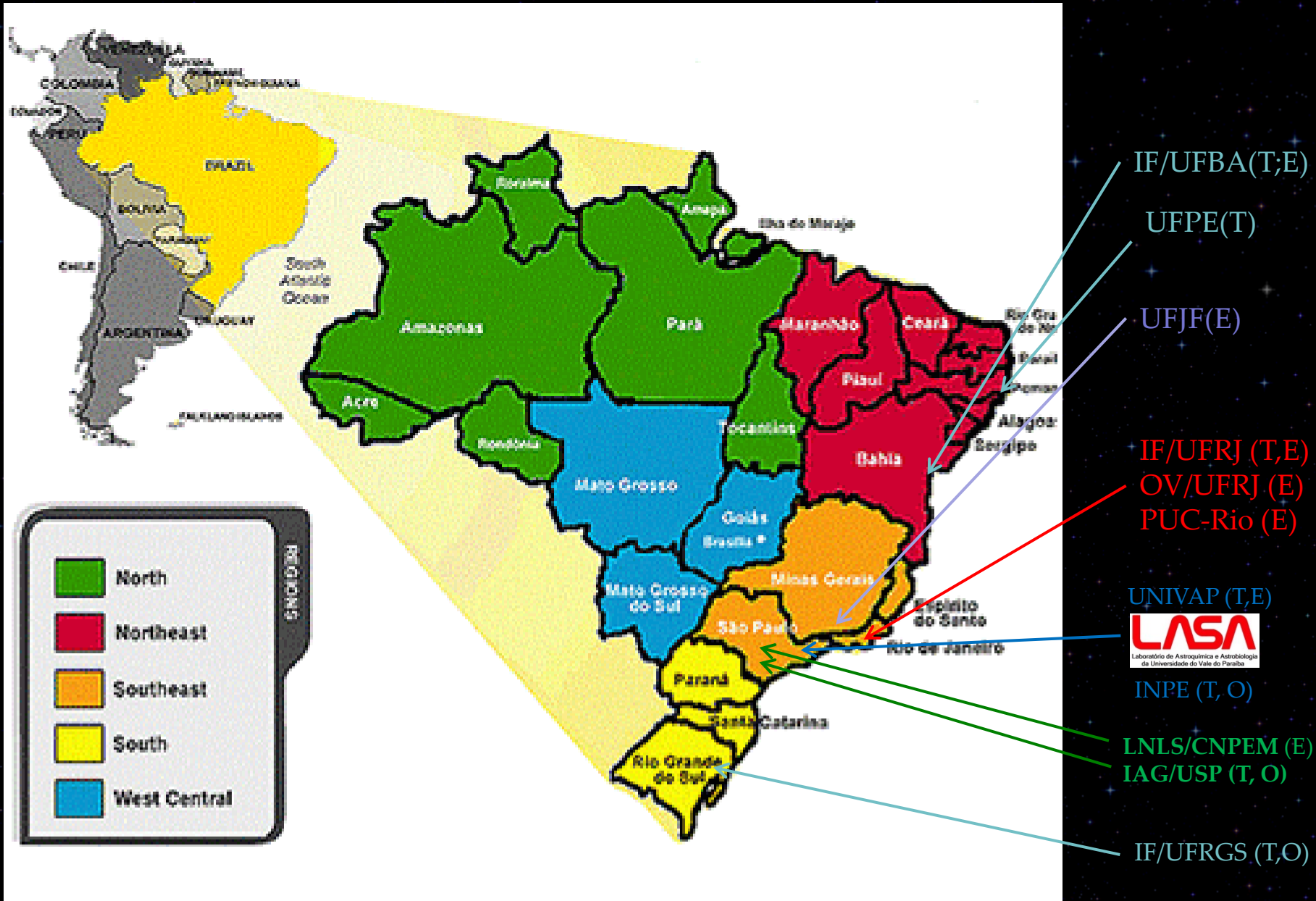


Joint to ESO



1st dedicated lab for
Experimental Astrochemistry

Brazilian Astrochemical Groups (~60-80 persons)



Some highlights from the Brazilian Astrochemistry!

Observations:

1st detection of MegaMaser (H₂O)

Some Results...

THE ASTRONOMICAL JOURNAL

VOLUME 79, NUMBER 9

SEPTEMBER 1974

First celestial water vapor sources observed at Itapetinga Radio Observatory, Brazil

P. Kaufmann, W. G. Fogarty, E. Scalise Jr., and R. E. Schaal

Centro de Rádio Astronomia e Astrofísica, Universidade Mackenzie, São Paulo, Brazil

(Received 3 June 1974)

CRAAM

Stronger H₂O sources in the southern sky were confirmed, showing flux densities about four times larger than previously reported. VY Canis Majoris has shown a strong reduction in intensity by June 1973. The presence of H₂O emission found in H2-3 tends to confirm the nature of this source as a compact HII region rather than a planetary nebulae. H2-3 is also the first known source of H₂O emission that is associated with (C) absorption.

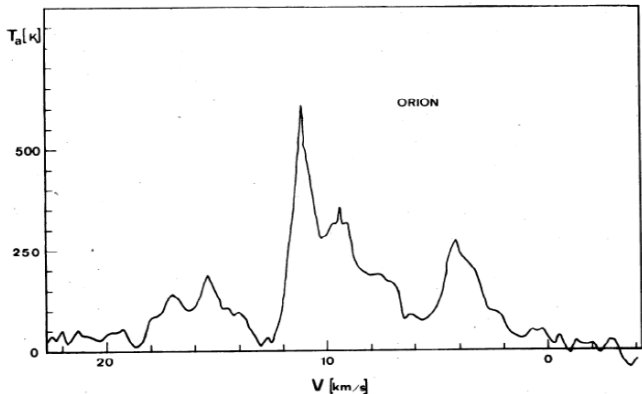


FIG. 2. The principal H₂O Orion on 22 June 1973, cent sec⁻¹. This is an average of 10 duration with an equivalent in 22 sec.

306

Nature Vol. 260 March 25 1976

letters to nature

New H₂O celestial sources associated with H II regions in the Southern Hemisphere

WE report here the first results of a nearly complete, high-sensitivity, water vapour survey of galactic H II regions situated in the Southern Hemisphere.

A typical upper limit of about 40 Jy (1 Jy = 10⁻²⁶ W m⁻² Hz⁻¹) was attained at the 6₁₆→5₂₃ rotational transition line of the water vapour molecule (that is, a frequency of 22,235.08 MHz).

A new ruby travelling wave K-band maser receiver¹ was used at the 13.7-m Itapetinga radio telescope², Atibaia, São Paulo, Brazil, between November 4 and 8, 1975. The Dicke-

P. KAUFMANN
R. H. GAMMON
A. L. IBANEZ
J. R. D. LEPINE

P. MÁRQUES DOS SANTOS
M. H. PAES DE BARROS
E. SCALISE, JR
R. E. SCHAAL

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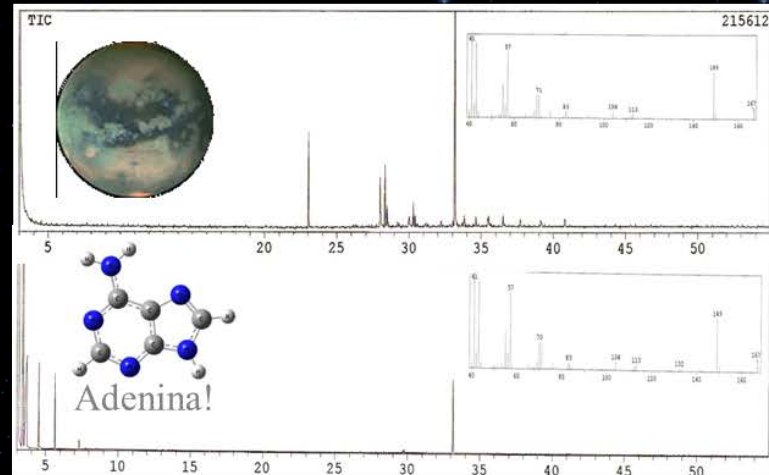
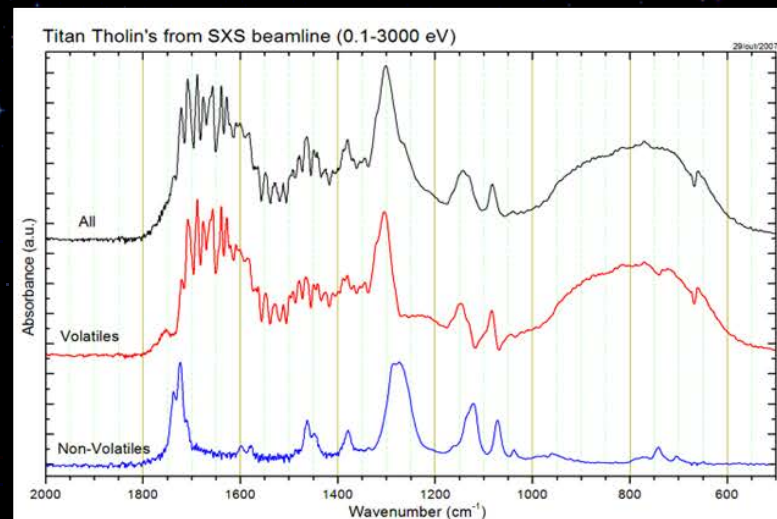
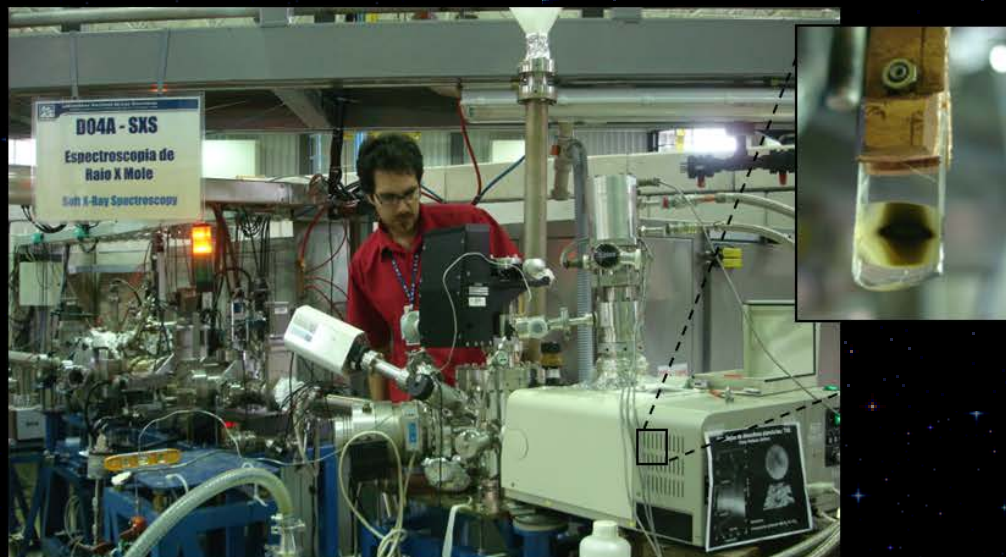
Experiments: Adenine production in Titan aerosol analogs by X-rays

LNLS, SXS Beamline (White beam. 0.1-3krV ~ 72h exposure time)

Sample: N₂:CH₄ (19:1) at 10 K

Analysis: FTIR and QMS in-situ;
RMN and GCMS ex-situ.

Adenine formation mainly via secondary electrons.





Enjoy the meeting....

