



POST CONFERENCE WORKSHOP

Workshop on Atomic and Molecular data
needs for lighting

Organizer N. Mason

As part of the EU supported VAMDC database project which is part of the FP7 "Research Infrastructures - INFRA-2008-1.2.2 - Scientific Data Infrastructures" initiative (See <http://www.vamdc.org/>) we will host a mini symposium immediately after the 20th ESCAMPIG meeting to discuss atomic and molecular data needs for the lighting industry. We welcome anyone attending ESCAMPIG to attend the symposium and participate in the discussion but numbers are limited by the venue so please indicate if you plan to participate by sending an email to [Prof. Nigel Mason](mailto:Prof.Nigel.Mason).

General purpose lighting consumes about 25% of all electricity produced, hence there is a great interest in improving lighting technologies. However despite the long and distinguished history of the lighting research community in establishing the required databases, the present status is still unsatisfactory particularly for the new technology developments using new working gas species (for example mercury-free fluorescent lamps, pure Xe, phosphorous and metal alloys such as InSb). A recent report by Lapatovich (The Role of Molecules in Low Temperature Plasmas for Lighting, AIP Conf. Proc. 901 (2007) 65-73) recently presented the need for a broad, well-coordinated joint effort by the Atomic and Molecular, and Plasma and lighting research communities to establish the necessary databases for the development of future light sources. This workshop aims to bring together data providers and users to discuss the needs and methods for improving the A&M database for the lighting industry.

The light source manufacturing industry (and lighting in general) is in the midst of an unprecedented shift in its technology focus as it seeks more energy efficient sources. In general the systems of continuing interest are:

- Low pressure Hg-rare gas "fluorescent" lamps
- Low pressure Hg-free fluorescent lamps
- High pressure metal halide lamps
- Electrodeless high pressure metal halide lamps
- High pressure sodium lamps

Measurement and modelling of these systems therefore will continue to be of interest with the focus being to increase their performance. Such improvements will, in part, come from a better understanding of atomic and molecular species, e. g as found in metal halide lamps and quantification of their spectroscopic, transport, and thermochemical properties.

Speakers:

1. **NIGEL MASON**, Open University, UK
Opening remarks on VAMDC and need for atomic and molecular data for lighting
2. **GRAEME LISTER**, Sylvania cooperation, USA
Title to be announced
3. **STUART MUCKLEJOHN**, Ceravision, UK
Title to be announced
4. **URSEL FANTZ**, University of Augsburg, Germany
Low pressure Hg-free fluorescent lamps
5. **BRATISLAV MARINKOVIĆ**, Institute of Physics, Serbia
Electron scattering data on metal atoms
6. **JOHN CURRY**, National Institute of Standards and Technology, USA
Title to be announced

Open discussion on data needs for lighting - a panel drawn from attendees will be organized after lectures.

Participants of the workshops should [register](#) at the ESCAMPIG conference and may [submit their papers](#) to the conference. The deadline for submission of contributions for Workshops is set to March 31st. The poster papers will be presented at regular ESCAMPIG poster sessions.

Last updated on August 5, 2010

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ESCAMPIG 2010 - Novi Sad, Serbia

GL - General Lecture; TL - Topical Lecture; HT - Hot Topic

	Tuesday 13 th	Wednesday 14 th	Thursday 15 th	Friday 16 th	Saturday 17 th		
8:30		OPENING	TL4 DUJKO	TL5 BRUGGEMAN	TL7 TACCOGNA	8:30	
9:00		GL1 KUSHNER	GL3 MAKABE	GL4 BELMONTE	GL6 CZARNETZKI	9:00	
9:45		TL1	HT3 - GONZALVO	HT5 - STARIKOVSKIY	TL8	9:45	
10:00		NIEMI	HT4 - IWASHITA	HT6 - HUEBNER	AANESLAND	10:00	
10:15		COFFEE	COFFEE	COFFEE	COFFEE	10:15	
10:45		GL2 LOUREIRO	POSTER SESSION 2	GL5 KERSTEN	GL7 DE BENEDICTIS	10:45	
11:30		TL2 PUAC		WILLIAM CROOKES' PRIZE TALK DONKO	HT7 - AKISHEV	11:30	
11:45		HT1 - HORI		ESCAMPIG 2010 REPORT	CLOSING	11:45	
12:00		HT2 - SKORO				12:00	
12:15						12:15	
12:30		LUNCH	LUNCH	LUNCH	LUNCH	12:30	
14:00		REGISTRATION	TL3 TANARRO	EXCURSION	TL6 VAN DIJK	WORKSHOP: Atomic and Molecular Data Needs for Lighting	14:00
14:30			WORKSHOP: Atomic and Molecular Collision Data for Plasma Modelling		WORKSHOP: Plasmas in Medicine		14:30
17:30	COFFEE		COFFEE		17:30		
18:00	POSTER SESSION 1		POSTER SESSION 3		18:00		
20:00	WELCOME RECEPTION 20:00 - 22:00				FREE TIME		20:00
			CONFERENCE DINNER 20:30 - 01:00				