

DIVISION XII
COMMISSION 14

**ATOMIC AND MOLECULAR
DATA**

*(DONNEES ATOMIQUES ET
MOLECULAIRES)*

PRESIDENT
VICE-PRESIDENT
PAST PRESIDENT
ORGANIZING COMMITTEE

Lyudmila I. Mashonkina
Farid Salama
Glenn M. Wahlgren
France Allard, Paul Barklem,
Peter Beiersdorfer, Helen Fraser,
Gillian Nave, Hampus Nilsson

PROCEEDINGS BUSINESS SESSIONS, 24 August 2012

Present: P. Caselli, N. Christlieb, E. van Dishoeck, F. Genova, S. Kwok, L. Mashonkina, K. Menten, O. Pintado, J. Shi, G.M. Wahlgren (Chair), F. Wang, S. Yu, P. Zhang, G. Zhao, and about two dozen students and researchers from the National Astronomical Observatories of the Chinese Academy of Sciences

The meeting was called to order by the Chair, who followed the agenda that had been sent to the membership prior to the meeting. The membership of the Commission stands at approximately 220 members, excluding the new members who will join the commission at the end of this General Assembly.

A main point of discussion at the Commission Business Meeting was the anticipated realignment of IAU Divisions and Commissions. Commission 14 is expected to be placed in a Division comprised of other Commissions that serve the entire Union, as opposed to being associated with a particular science driven Commission.

Officers: In our commission the Vice President (VP) becomes the President, and a new VP is chosen from among members of the Organizing Committee. However, our Vice President, Ewine van Dishoeck, was selected to serve as President of Division on Interstellar Medium under the new IAU Division structure that was approved at this General Assembly. As a result, the incoming Vice President, Lyudmila Mashonkina, has been elevated to the position of commission President, and an outgoing member of the Organizing Committee, Farid Salama, was selected to become the new Vice President.

Organizing Committee: Our commission's usual practice is for a member of the Organizing Committee (OC) to serve for two consecutive three year terms, with the past President serving on the OC for three years past their term as President. Officers may serve longer than six years if necessary to undertake service as officers. For the new triennium four new members of the Organizing Committee were selected by vote of the commission membership. The new members are France Allard, Paul Barklem, Helen Fraser and Gillian Nave.

Working Groups: The commission's Working Group (WG) structure will be retained for the next triennium and is composed of the WGs Atomic Data, Molecular Data, Collision Processes, and Solids and Their Surfaces. An expanded set of chairpersons for these WGs is being finalized.

Meetings of Interest: The Commission acts to bring together providers and users of atomic and molecular data and to disseminate data. To these goals, a number of meetings serve as forums for these discussions. Meetings of interest to members of the Commission will be posted on its website.

General Assembly Commission 14 Science Meeting: The commission sponsored a science session immediately following the brief business session. This session was comprised of talks in several areas of interest to the Commission. The speakers and their topics were as follows:

Lyudmila Mashonkina: Astrophysical tests of atomic data important for stellar Mg abundance determinations

Gang Zhao: Laboratory astrophysics and stellar spectroscopy in the Chinese Academy of Sciences

Ewine van Dishoeck: Water and organic molecules with Herschel and ALMA: examples of recent laboratory needs

Karl Menten: Molecular data and software needs for the bright new world of (sub)millimeter astronomy

Shengrui Yu: VUV photochemistry of simple molecules in the gas phase

Peiyu Zhang: Quantum dynamics of astrophysically relevant chemical reactions

Paola Caselli: Nitrogen chemistry and isotopic fractionation - laboratory needs to unveil our origins

Sun Kwok: Unexplained spectral phenomena requiring laboratory data

Lyudmila I. Mashonkina and Farid Salama

President and Vice-President of the Commission, 2012-2015, respectively