

**DIVISION H**  
**COMMISSION 34**

**INTERSTELLAR MATTER**  
*MATIÈRE INTERSTELLAIRE*

**PRESIDENT**  
**VICE-PRESIDENT**  
**PAST PRESIDENT**  
**ORGANIZING COMMITTEE**

**Sun Kwok**  
**Bon-Chul Koo**  
**You-Hua Chu**  
**Dieter Breitschwerdt,**  
**Elisabete de Gouveia Dal Pino,**  
**Ji Yang, Masato Tsuboi,**  
**Michael Rozyczka, Mika Juvela,**  
**Mike Burton, Paola Caselli,**  
**Susana Lizano, Sylvie Cabrit,**  
**Viktor Toth**

**REPORT**

Before 2012, Commission 34 was identical to Division VI. The organization and executive officers of the Division and the Commission were the same. At the 2012 General Assembly (GA) in Beijing, the IAU reformed the divisional structure and the previous Division VI which Commission 34 was under was combined with Div VII to form Division H: Interstellar Matter and Local Universe. Ewine van Dishoeck was named by the IAU executive committee as the President of the new Division. Since the Commission structure is to be reformed at the GA of 2015, Commission 34 retains its original name “Interstellar Matter” and joined Commissions 33 and 37 (formally under Division VII) as commissions under the new Division H.

At the Commission 34 business meeting held during the Beijing GA, Sun Kwok (China), former Vice President of Division VI, was elected President and Bon-Chul Koo (Korea) as Vice President. We discussed a need to better define the topic and goal of Commission 34 so that it can have a more specific role under Division H. As Commissions 33 and 37 will incorporate the areas of galactic structure and dynamics and stellar clusters, Commission 34 should cover the gas and dust components of the Galaxy, physics and chemistry of the interstellar medium, diffuse and dense interstellar clouds, and stellar ejecta and circumstellar matter.

The Commission organized or co-organized several meetings during the 2012 IAU GA: IAU Symp. 288 *Astrophysics from Antarctica*, IAU Symposium 292: *Molecular Gas, Dust, and Star Formation in Galaxies*, Special Session 4: *New Era for Studying Interstellar and Interstellar Magnetic Fields*, Special Session 8: *Calibration of Star-formation Rate Measurements Across the Electromagnetic Spectrum*, Special Session 12: *Modern Views of the Interstellar Medium*, and Special Session 16: *Unexplained Spectral Phenomena in the Interstellar Medium*. At the 2015 IAU GA, Commission 34 organized Focus Meeting 15: *Search for Water and Life’s Building Blocks in the Universe*.

There are two working groups (WG) under Commission 34 and they are Astrochemistry (chair: Tom Millar, UK) and Planetary Nebulae (chair: Letizia Stanghellini, USA). The

Planetary Nebulae WG organized IAU Symposium 283: *Planetary Nebulae: An Eye to the Future* in Puerto de la Cruz, Tenerife in 2011 and Focus Meeting 4: *Planetary Nebulae as a Probe of Galactic Structure and Evolution* in the 2015 IAU GA in Hawaii. It will also organize IAU Symposium 323: *Planetary Nebulae: Multi-wavelength Probes of Stellar and Galactic Evolution* in Beijing in 2016.

The Astrochemistry WG organized IAU Symposium 280: *The Molecular Universe* in Toledo, Spain in 2011.

After the IAU Commission reform in 2015, both the Astrochemistry and Planetary Nebulae WG became new commissions H2 and H3, respectively. Commission 34 has served its historical mission and is now completely replaced by the new Division H and the Commissions H2 and H3.