

COMMISSION H2

ASTROCHEMISTRY

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Paola Caselli

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INTER-COMMISSION WORKING GROUP

Commissions C1, F2, F3, H2

Education and Training in Astrobiology

TRIENNIAL REPORT 2018–2021

1. Activities of IAU Commission A2 during 2018-2021

by Ted Bergin (President), Paola Caselli (Vice President) and Jes Jørgensen (Secretary)

Commission H2 Astrochemistry came into existence at the 2015 General Assembly following a proposal to the IAU from Tom Millar, Paola Caselli and Satoshi Yamamoto, having previously existed as a very active Working group since 1984. Tom Millar (UK) was the founding President and Ted Bergin (USA) is the current President.

The Commission H2 has identified five key activities for development:

- advertising the role of astrochemistry in astronomy;
- emphasising the large amount of data coming from new facilities;
- participating in summer schools and other education programmes;
- maintaining interdisciplinary links with scientists in other fields including physical chemists, spectroscopists and astrobiologists;
- connecting the exploding field of exoplanet characterization to our field which has pioneered the astrophysical/chemical connections.

2. Astrochemical Frontiers 2020 Quarantine Edition

Our commission was very much concerned about the impact on careers induced by the global pandemic. One aspect of this was the lack of conferences and invited/contributed talks. We therefore organized a remote meeting entitled Astrochemical Frontiers 2020 Quarantine Edition. Our goals were:

- to bring the field together in an inclusive manner.
- to highlight exciting science by early career scholars.
- to allow for as much human interaction as possible via a zoom meeting.

Commission H2 served as the SOC and managed all aspects of the conference with help from Christine Benoit (Harvard University). In all, 436 individuals registered for this conference with 120 abstracts submitted for 60 talks. The conference highlighted the

significant gender diversity in our field and the wealth of exciting science encompassed theory, observations, and laboratory work. Results from ALMA dominated the meeting with significant focus on the formation of planets and the rich organic inventory associated with star forming regions. To many of us this conference was a bright spot in a very difficult time.

3. Preparing for Next IAU Symposium

A major task of this commission is to prepare the way for the next major IAU symposium on Astrochemistry. These symposia are central unifying conferences as our field has continued to grow in part fostered by these events. Our last conference was held in Puerto Varas, Chile (IAU Symposium 332) in 2017. With the upcoming launch of JWST and the still continuing fantastic return of ALMA our goal is to have the next symposium in 2023. The location is to be determined but the organizing committee will work on this proposal at the end of this year.

Edwin Bergin
president of the Commission