

Name of the Union: IUPAC

Activities' Report - Year 2016

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1. Introduction

The International Union of Pure and Applied Chemistry (IUPAC) serves to advance the worldwide aspects of the chemical sciences and to contribute to the application of chemistry in the service of Humankind. As a scientific, international, non-governmental and objective body, IUPAC can address many global issues involving the chemical sciences. IUPAC is recognized as the world authority on chemical nomenclature, terminology, standardized methods for measurement, atomic weights and many other critically evaluated data. IUPAC is an association of bodies, National Adhering Organizations, which represent the chemists of different member countries. The work of IUPAC is done almost entirely by approximately 1400 volunteer scientists from many countries who serve on committees, subcommittees, and task groups. IUPAC's scientific work is conducted largely under a formal project system, in which proposals from chemists worldwide are peer-reviewed and, if meritorious, are approved and supported. Through CNR, Italy has been represented in IUPAC for decades. In 2011 Dr. Mario Malinconico, Research Director at IPCB-CNR in Pozzuoli, was appointed Representative CNR NAO at IUPAC, subsequently confirmed until 2018. In 2013, with the decree of the President CNR, was established the Italian National Committee for IUPAC, coordinated by Dr. Mario Malinconico, with the task of supporting the efforts of CNR for a more radical spread of chemical culture in the country. The Committee includes experts from leading Italian universities and the President of the Italian Chemical Society.

2. Main activities carried on by IUPAC during 2016 relevant for Italy and for CNR

The most important activities carried out in 2016 were the Organization of 2 International IUPAC Conferences:

1 - Rome, 6-9 April 2016, XXI IUPAC CHEMRAWN Conference "Solid Urban Waste Management". The Conference was organized and chaired by Dr. Mario Malinconico, attended by around 200 scholars, industry, environmental and trade associations, policy makers from Italy, Europe and 30 countries with a significant representation from Africa, Asia and developing countries. The conference highlighted the criticalities of urban solid waste management, analyzing technological solutions (energy, biological and material recovery), developing a tight confrontation between technicians, politicians and environmental associations. The convention ended in St. Peter's Square, where, during a Jubilee Audience, a call was made to his Holiness Pope Francis for the defense of the environment by the IUPAC World Chemical Society.

2 - Venice, 4-8 September 2016, 6th International IUPAC Conference on Green Chemistry. The conference was organized and chaired by Prof. Pietro Tundo, Member of the Italian CNR IUPAC Committee, Member of the IUPAC Bureau since 2015. The success of the Conference is in its numbers: 6 plenary lectures, 20 keynotes speeches, 180 posters, 2 symposia, 3 round tables. 150 oral communications covered the following topics: green materials, green industrial processes and molecular innovation, green bioprocesses, green energy and green policy.

3. Activities carried on by Mario Malinconico within the Union during 2016 and impact on the Italian scientific community

Dr. Malinconico has been actively promoting IUPAC activities, participating in events as a representative of IUPAC Italia and presenting Italian activities in IUPAC, with particular reference to sustainable chemistry. Dr. Malinconico promoted the participation of Young Observers at conferences in Rome and Venice, with industrial sponsorships such as Novamont. Dr. Malinconico also presented a Project Proposal on "Additive for degradation of Polyolefins" in the Polymer Division during 2016. The project is of great importance for the national scientific community, being our state-of-the-art industry in the field of biodegradability of plastics.

4. Evaluation of the participation in terms of benefits and membership cost.

Italian participation in IUPAC has never been as intense as in the years from 2011 to today. Italy is present in all Divisions with at least one National Representative, but in fact with many Titular Members, Associate Members, with a President of the Division, Prof. Francesco Nicotra, also a member of our Committee, and for the first Time in the history of IUPAC, with an Italian member in the Bureau, Prof. Pietro Tundo, also a member of our Italian Committee. Evaluation of Italians' attendance and how to improve interest and involvement

5. Evaluation of Italians' attendance and how to improve interest and involvement

The lack of support in the missions in Rome of the participants of the Italian Committee for IUPAC in 2017 has undoubtedly affected the functionality of the Committee itself, and it would be desirable for it to be restored. There is still insufficient participation of Italian chemical industries in IUPAC activities. The role of IUPAC and its activities through projects and commissions can have a profound impact on industrial scenarios, with particular reference to sustainable chemistry. To this end, it is suggested to open a discussion table with industry associations, such as Confindustria and Federchimica. Italian experts with important roles within the Union or within related Commissions and Programs (if known)

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Titular Members in Division 1 (Pierangelo Metrangolo), Division 2 (Lidia Armelao), Division 3 (Francesco Nicotra, Vice-President and next Division President), Division 5 (Sandra Rondanini), Chemrawn Committee (Vincenza Faraco).

Associate Members in Division 6 (Roberto Terzano), Division 7 (Assunta Borzacchiello), CCE Committee (Lidia Armelao),

National Representative in Division 1 (Franco Pavese), Division 4 (Mario Malinconico), Division 8 (Fabio Aricò), COCI Committee (Mario Marchionna), CCE Committee (Antonella Rossi).

7. If Union with CNR Commission, short summary about the 2016 CNR Commission activities

The CNR Italian Committee for IUPAC is operational since 2013. It is currently composed of the following members:

Luigi Ambrosio, IPCB, CNR - Naples

Lidia Armelao, ICMATE, CNR - Padua

Mario Malinconico - Coordinator, IUPAC National Representative, IPCB-CNR, Pozzuoli

Mauro Marchetti, ICB-CNR, Sassari

Francesco Nicotra, University of Milan-Bicocca, Milan

Massimo Olivucci, University of Siena, Siena

Giuseppe Resnati, Polytechnic of Milan, Milan

Raffaele Riccio, University of Salerno, Fisciano

Nicola Senesi, University of Bari, Bari

Pietro Tundo, Cà Foscari University, Venice

The Commission met in Rome on two occasions in 2016 to prepare the congressional events in Rome (Chemrawn Conference, April 2016) and Venice (Green Chemistry, September 2016). During the meetings, proposals for applications to the IUPAC Divisions and Committees for the period 2018-2019 were also discussed and advanced:

Division 1 - Dr. Pierangelo Metrangolo TM

Division 2 - Prof. Lidia Armelao TM

Division 3 - Prof. Francesco Nicotra TM

Division 4 - Dr. Mario Malinconico TM

Division 5 - Dr. Sandra Rondanini TM

Division 6 - Prof. Roberto Terzano TM / AM

Division 7 - Dr. Assunta Borzacchiello AM

Division 8 - Dr. Fabio Aricò TM / AM

Committee on Chemistry Education (CCE) - Prof. Lidia Armelao AM - Prof. Antonella Rossi NR

Committee on Chemical Research Applied to World Needs (CHEMRAWN) Prof. Vincenza Faraco TM

Committee on Chemistry and Industry (COCI) - Dr. Mario Marchionna AM

Committee on Publications and Cheminformatics Data Standards (CPCDS), Margherita Gavagnin All Positions

In addition, members of the Committee were regularly in contact with telephone and mail to discuss and plan actions.

8. Notes (if any)

9. Conclusions

The undersigned hopes that in 2017 it will be possible to have a meeting with CNR President Prof. Massimo Inguscio to illustrate the activities of the Committee and plan for a strong participation of the CNR at events scheduled for 2019 to celebrate the Centenary of Foundation of the IUPAC, which will run July 28, 2019, in the UNESCO Memorial Calendar for 2019. Italy has been one of the founding nations of IUPAC, and is therefore called upon to play a promotional role in the initiatives

Pozzuoli, May 14, 2017

Signature

Handwritten signature of Mario Marchionna in cursive script.

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