

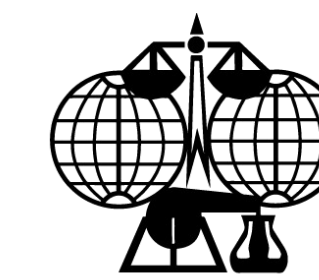
IUPAC- Polymer Division IV

Subcommittee on Polymer Education

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CHAIR : Lydia Sosa Vargas

SECRETARY: Jan Merna



IUPAC

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY



INTRODUCTION

The Subcommittee was established in **2005** to bring existing educational activities under one roof and to emphasize both the importance of polymer education and the dedication of the IUPAC Polymer Division to this important field. Our current subcommittee is composed of **30 members (24M + 6F)**, representing **every continent of the world**.

We support and organise actions such as:

- Educational activities for students from less-developed countries
- Educational sessions at the IUPAC Macro World Polymer Congress series
- Maintaining the IUPAC Polymer Education Website

The Subcommittee meets annually on the occasion of the alternating IUPAC General Assembly (odd years) and IUPAC Macro World Polymer Congress (even years).



Photo collage of members attending the online meetings on the 14th July 2022 and the 3rd May 2023

KEY ACTIVITIES in 2022

Educational Workshop in Polymer Sciences

These workshops are intended for *students or active researchers from emerging countries*.

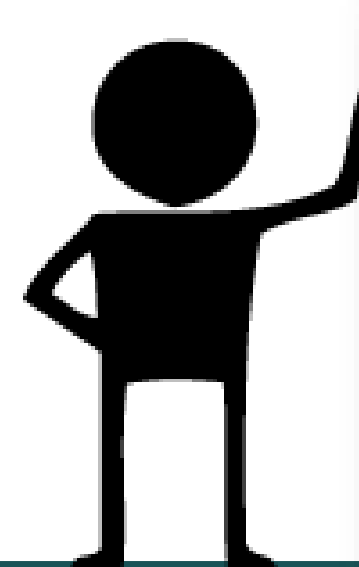
- Series 1- 4 workshops (2016-2020)
- Series 2- 4 workshops (2022-2028)

The next session **MACRO 24** (Warwick), on the topic of: **"Characterisation"**.

Future topics include:

- Processing (2026)
- Applications (2028)

For more info on the project, Scan the QR code below!



Prof. Dr. Michael Cunningham, michael.cunningham@queensu.ca, Queen's University, Canada
 Polymerization-induced self-assembly (PISA): Experimental approaches to preparing polymer nano-objects using PISA
 Date: 18th July 2022 (Mon)
 12.10 pm to 13.30 pm

Dr. Simon Harrison, sharrison@enscm.fr, CNRS, France
 Distributions, dispersity and self-assembly
 Date: 18th July 2022 (Mon)
 12.10 pm to 13.30 pm

Prof. Dr. Su-Mi Hur, smhur@pnu.ac.kr, Chonnam National University, Korea
 Advances in polymerization and self-assembly assisted via machine learning and data science
 Date: 18th July 2022 (Mon)
 12.10 pm to 13.30 pm

Prof. Dr. Holger Schönherr, schoenherr@chemie.uni-siegen.de, University of Siegen, Germany
 "Polymers for applications" – The long way from an idea and work in the academic lab towards a product
 Date: 18th July 2022 (Mon)
 10.00 am to 10.30 am

Prof. Dr. Myung-Han Yoon, mh.yoon@gsi.ac.kr, GSI Helmholtz Institute for Heavy Ion Research, Germany
 Polymers for future electronics
 Date: 18th July 2022 (Mon)
 10.00 am to 10.30 am

Prof. Dr. Per Zetterlund, p.zetterlund@unsw.edu.au, The University of New South Wales, Australia
 Engineering of polymer nanoparticle morphology for paint applications
 Date: 18th July 2022 (Mon)
 through email communication

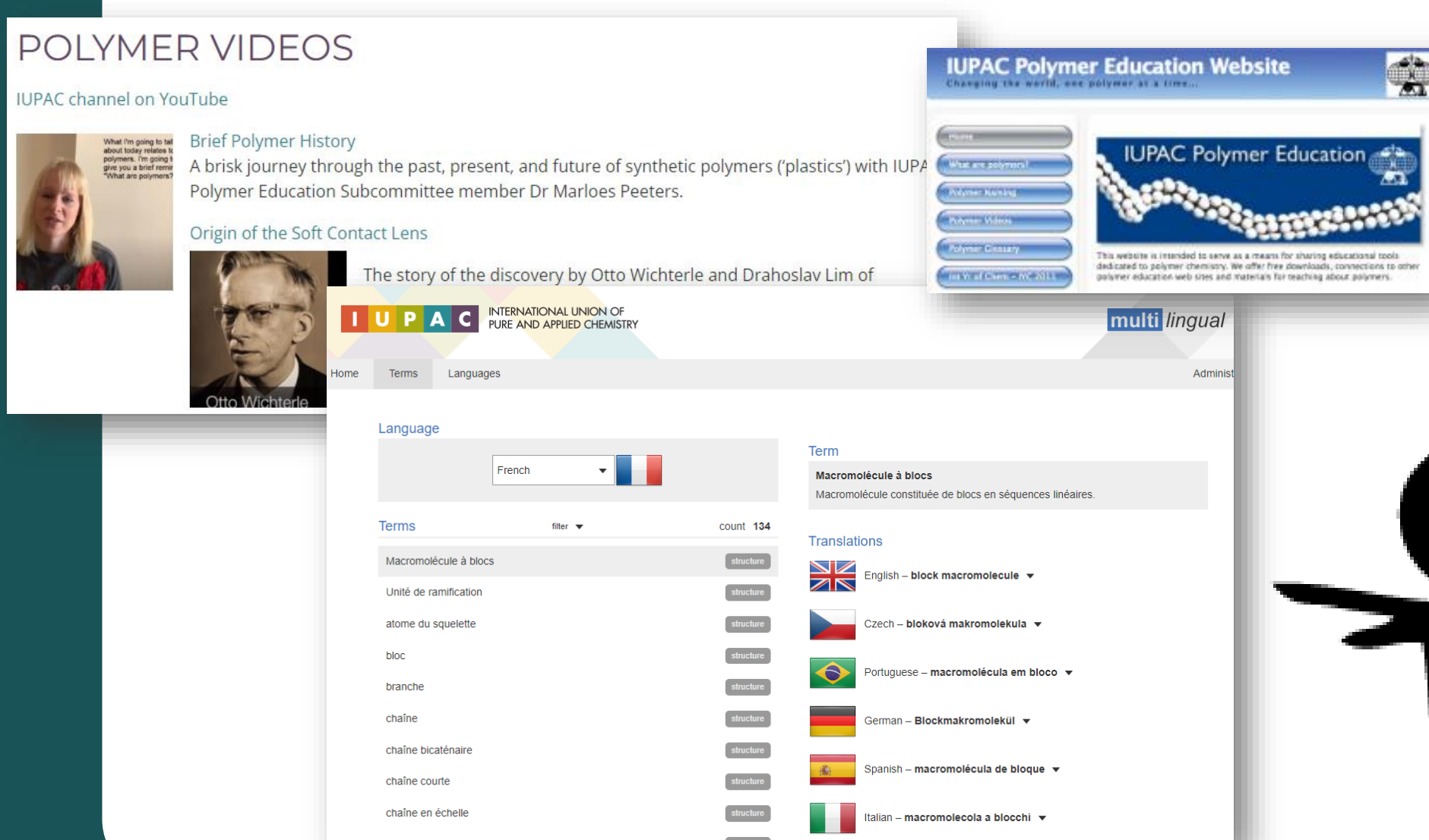
Project : 2021-021-1-400

Enhancing Educational Website for Polymer Chemistry

Information available on the website:

- Link to the special issue of **Chemistry Teacher International in Polymer Sciences**
- Link to the **video recording** of the Educational Workshop in Polymer Sciences 2020+
- Link to the **Multilingual Polymer Glossary** (1872 terms, 14 different languages)

multilingual.iupac.org



Project : 2012-027-3-400

Hands-on training on Wikipedia and Wikidata for application of IUPAC terms across Wikipedia

A Wikipedia editing course, to produce *new material* on polymer-related topics. One major result was to make the Polymer article a 'feature' article.

Members of the task group learned more in-depth about **Wikipedia** and **Wikidata**, and are applying this to the creation/editing of high-quality Wikipedia pages.

A new edition took place in Milano from the 3-7th of July 2023.

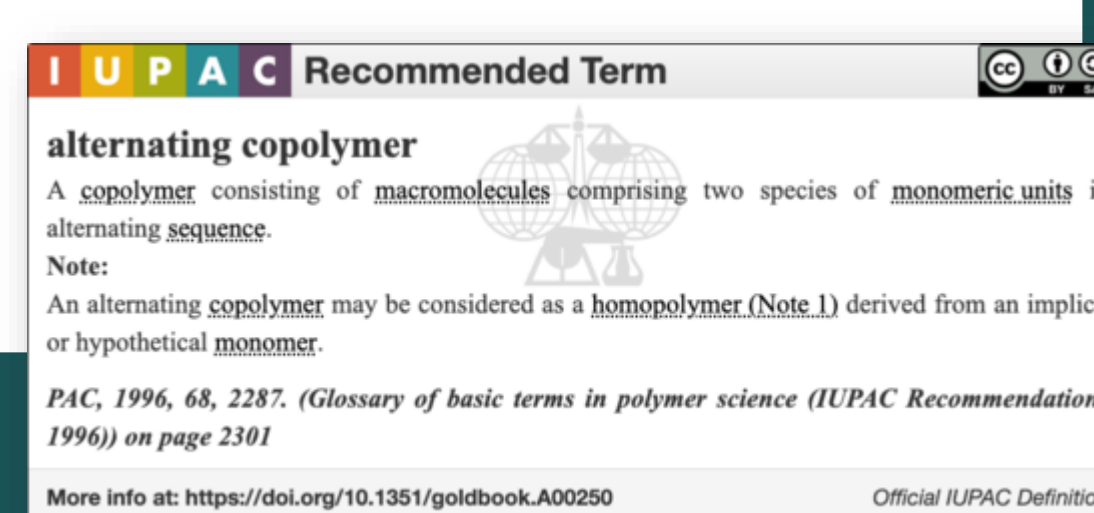


Project : 2018-038-1-400

Synchronizing Wikipedia: Polymer Definitions and Terminology

We introduce **IUPAC approved terminology (IUPAC boxes)** into polymer-related content of Wikipedia, other work also includes :

- **Check** existing articles against existing Division IV Terminology & Nomenclature documents.
- **Identify & create entries** for Division IV terms
- **Complete** existing polymer "stubs"



Project : 2015-032-2-400

Polymer video competition

We want to **promote** and **use** the work of the terminology and education subcommittees towards an educational application by inviting the public to create videos based on these documents.



Launch of the competition is expected for **September 2023**

Project : 2022-003-2-400

An International Exercise-Based Syllabus in Polymer Chemistry

Resource for teachers and students in less developed countries, providing the a **syllabus and content** with enough **exercises** to support an undergraduate course of study in polymer chemistry.

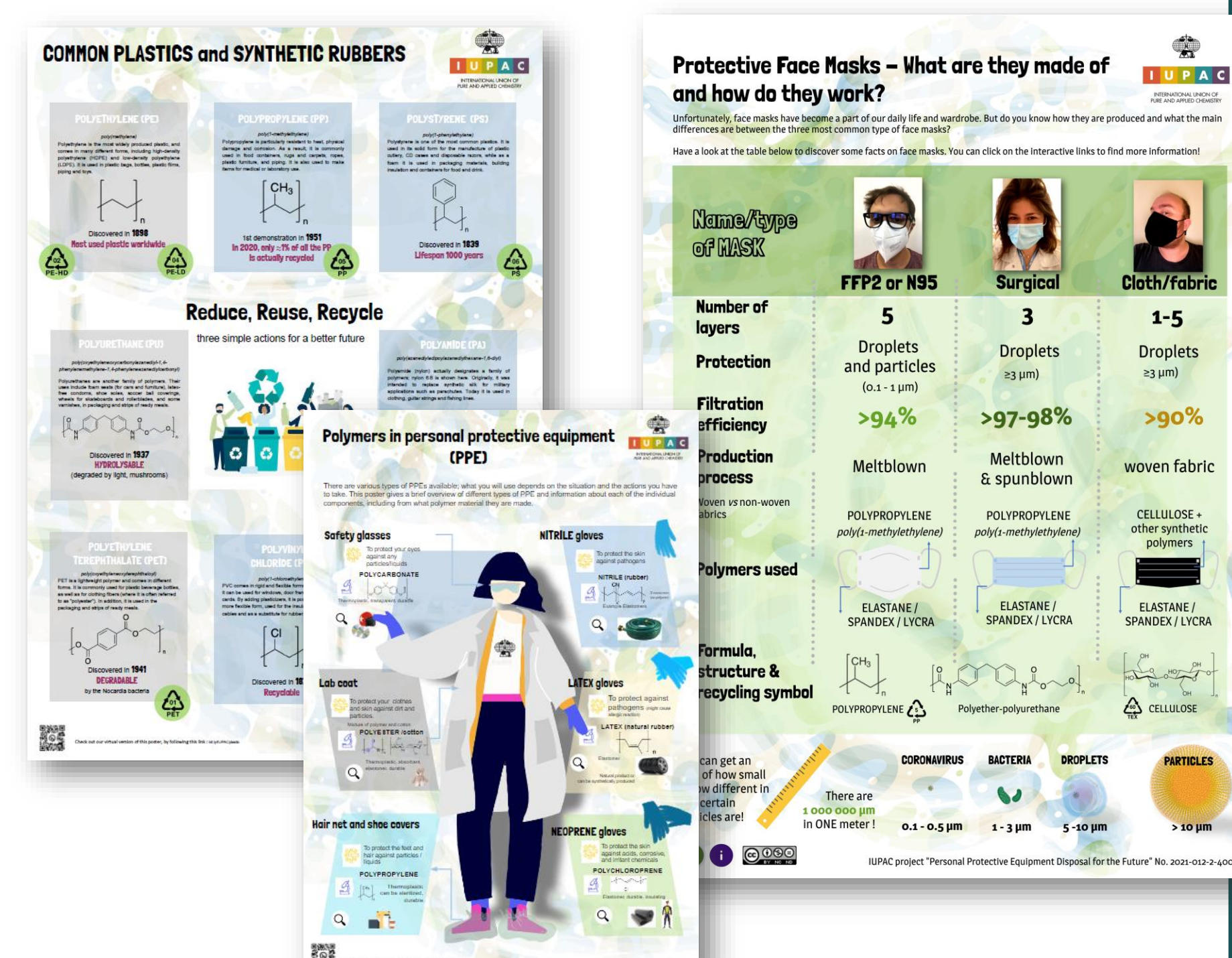


A first draft of the syllabus is very close to completion!

Project : 2017-019-2-400

Personal Protective Equipment Disposal for the Future

Here, we aim to **critically evaluate** existing data about the components used in personal protective equipment (PPE), **propose** viable forms of disposal and **raise awareness** on the problems caused by used PPE. A series of posters and online supports are being developed:



(Left to right) Poster on common plastics and rubbers, Polymers in PPE, and composition of face masks (English versions).

These posters are being translated in >8 languages

IUPAC PARTNERS:

Chemistry and the Environment Division, Chemistry and Human Health Division, Interdivisional Committee on Green Chemistry for Sustainable Development (ICGCSD), Committee on Chemistry Education

Project : 2021-012-2-400

Visit our website for more information!

iupac.org/body/403/
iupac.org/polymer-edu/