Stamps International

Polymers Everyday and Everywhere

I recently looked back at all the notes I've written for Chemistry International during the past decade or so, and polymer chemistry seems to be a recurrent theme, with a range of topics that underscores the multifarious applications of polymeric materials, both natural and synthetic. For example, the common polypropylene stacking chair, created in 1962 by Robin Day, one of the most influential furniture designers of the 20th century, was featured on a British stamp used to illustrate a Stamps International article published in 2011.

The rising popularity of plastics in the 1960s, referred to in a scene played by Dustin Hoffman in the movie *The Graduate,* released four years after the 1963 Nobel Prize in Chemistry was awarded to Karl Ziegler and Giulio Natta "for their discoveries in the field of the chemistry and technology of high polymers", was described in a note that appeared in 2013.

And the pioneering work on hydrogels by Otto Wichterle, an ingenious Czech organic chemist usually credited with the invention of soft contact lenses, was outlined in another note a couple of years ago. In 1967, incidentally, Wichterle was the founder and first president of IUPAC's Macromolecular Division, which became the Polymer Division ("Division IV") in 2004. Now that the Polymer Division is celebrating its 50th anniversary, it is worth remembering that polymers are today truly ubiquitous materials and almost 300 million tonnes of plastics are produced in the world each year, more than half of which are based on polypropylene and various types of polyethylene.

More sophisticated polymers, such as those used in plastic banknotes and drug delivery systems, are becoming increasingly important, and only time will tell what fascinating applications arise from the new materials being developed these days.

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