

This article was downloaded by:

On: 25 January 2011

Access details: *Access Details: Free Access*

Publisher *Taylor & Francis*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Macromolecular Science, Part A

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713597274>

Editorial Comment

George E. Ham

To cite this Article Ham, George E.(1974) 'Editorial Comment', Journal of Macromolecular Science, Part A, 8: 2, i – ii

To link to this Article: DOI: 10.1080/00222337408065827

URL: <http://dx.doi.org/10.1080/00222337408065827>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Editorial Comment

On a recent Sunday I took a drive northeast through my beloved countryside into Connecticut. A light mantle of snow lay over the rural farms encircled with stone walls and over the villages with their trim white houses.

Often on the journey no automobiles could be seen ahead or in the rearview mirror. The experience aroused old memories of boyhood in the South, when automobiles were a relative scarcity and rural life was seldom disturbed by their passage.

I found myself hoping that somehow the energy crisis might not be solved for another month or two. I wondered if perhaps others might not wish it also.

Suddenly, it seemed curious to find those who for so long had preached the joys of extravagant consumption, of jetting about the world on a whim, of bigger and more powerful automobiles were now on the side of the angels, advocating frugality, energy conservation, and small (or no) automobiles.

How far would the trend go? Almost certainly, it seemed, we would see some resumption of old practices. But the fact that industries which thrive on growth in consumption were urging conservation, however much they might gag on the word, was impressive. Perhaps the world really was changing in a fundamental way.

If logic was now finally to prevail in societal trends, it was timely to reexamine some fundamental facts.

1. The entire petroleum resource of the world was being depleted, principally for energy purposes, at a rate which would use it up for all practical purposes within 40 years.

2. Petroleum now in the ground required not less than about 100 million years to produce.

3. Use of coal at a rate necessary to satisfy projected needs would

leave a scarred earth over vast areas of the United States. The muddy rivers of the Midwest would become muddier and even more contaminated, and water suitable for drinking much more difficult to produce.

4. The grey and sooty skies of the 1930s would return to industrial cities and perhaps even to residential communities in their desperate search for fuel to replace the scarce and expensive fuel oil.

Clearly, the energy crisis briefly outlined above has all the trap-pings of a "multibind" situation. Every direction has its fundamental difficulties.

It would be desirable, however, to isolate at least one logical consequence of this situation for some serious remedy over the next 20 years.

Petroleum resource cannot possibly survive the present and in-creasing consumption of fuel. Petroleum companies in the past have enjoyed the designation of "energy" companies. They had better begin changing this image. They are indeed the holders and, hopefully, the conservators of one of the rarest, most versatile, and least re-placeable of the world's resources.

Petroleum may be too valuable to be used for fuel beyond the next 20 years or so. This dwindling commodity must be preserved for petrochemical purposes—for benzene, acetone, ethylene, propylene, vinyl chloride, and for the polymers derived from them—polystyrene, polyethylene, polypropylene, polymethyl methacrylate, synthetic rubbers, and synthetic fibers. Alternative sources such as acetylene and carbon monoxide must be considered, but for the petroleum-based products listed above, they are inferior sources.

In the case of the petroleum hydrocarbons, the steps to petro-chemicals and polymers are relatively simple and energy-efficient. Moreover, the vast technology of organic chemistry and engineering which has arisen about this field must be preserved and utilized as an invaluable human asset.

Certainly this one step toward assuring the continuation of the petrochemical and polymer industries over the next century as viable human activities is wholly warranted.

George E. Ham

Briarcliff Manor, New York
February 3, 1974