dendral 1



## THE ROCKEFELLER UNIVERSITY

1230 YORK AVENUE

NEW YORK, NY 10021

October 23, 1986

JOSHUA LEDERBERG

PRESIDENT

Professor David Barnette Department of Mathematics University of California Davis, California 95616

Dear Professor Barnette:

Nature (9/25/86) brought to my attention your book on... polyhedra..., which I have been enjoying very much, and will commend to others.

You may be interested that the chemists have finally gone out of their way to synthesize a non-planar-graph molecule (see enclosure). These instances are remarkable enough, we can list them as odd exceptions.

The systematics of graphs is still not what I would like it to be. We have to cheat\* to accommodate the tetravalent nodes that do crop up. But the system we have makes do, well enough.

It was good to hear of you.

Yours sincerely,

Joshua Lederberg

Encl.

P.S. Biochemical combinatorics focusses these days on linear strings but long ones like the human DNA,  $3x10^9$  units long. There is lots to do in graph matching (under point mutations, deletions, transpositions...) in that sphere.

4

=

Simmes HE

Tat. L. 22:287 /81

Offird University Press:1985, Pp.404, ISBN 0-19-859640-5, IIbk 125; pbk 112:50.

Map Coloring, Polyhedra, and the Four Color Problem. Dolciani Mathematical Expositions, No.8. By DAVID BARNETTE. The Mathematical Society of America:1986. Pp.168. Hbk ISBN 0-885853094. 527-60.

Markov Processes: Characterization and Convergence, By STEWART N. ETHIER and THOMAS G. KURTZ. Wiley:1986. Pp.534. Hbk ISBN 0-471-08186-8. £49.10. \$47.50