

useful text in a curriculum aimed at training accelerator builders. It is also an extremely valuable source on pulsed-power devices and other aspects of the field not well known to cyclotron and synchrotron builders.

DONALD E. YOUNG

Fermi National Accelerator Laboratory

Starsailing: Solar Sails and Interstellar Space Travel

Louis Friedman

Wiley, New York, 1988. 139 pp.

\$9.95 pb ISBN 0-471-62593-0

Solar sails get surprisingly short shrift in this slim popularization by the director of the Planetary Society: The chapter on planetary exploration seems to be warmed over from standard JPL press kits and scarcely mentions solar sails. The solar sail is the epitome of the hard-nosed "small is beautiful" philosophy of spacecraft propulsion, but Louis Friedman drags it into unconvincing schemes for carrying men to Mars and ultimately to the stars. Thus in his hands, solar sailing loses credibility as a genuine alternative to today's unmanned spacecraft. That's a pity. He might have instead described the World Space Foundation's proposal to send solar-sail-driven craft prospecting among near-Earth asteroids.

A skillful teacher could use this book to capture the flagging interest of students and to bring to life abstract concepts (such as radiation pressure and rotational dynamics). Moreover, this is the first book to demonstrate how solar sails could actually be constructed and deployed. What a disappointment, though, that Friedman has thrown away his chance to describe in greater detail how solar sailing concepts matured during the \$4 million project he supervised in the 1970s, the Comet Halley Rendezvous. Still, this is the only book so far about a stirring topic.

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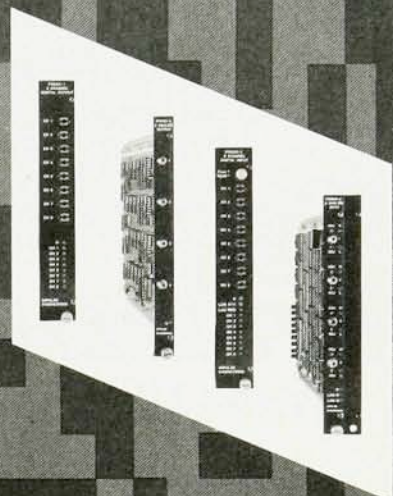
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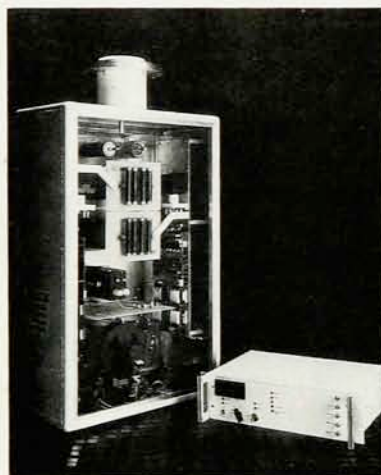
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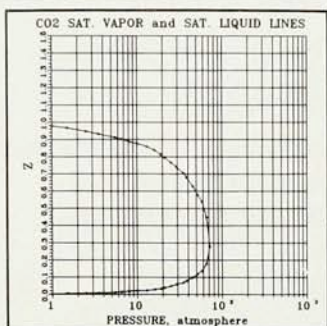
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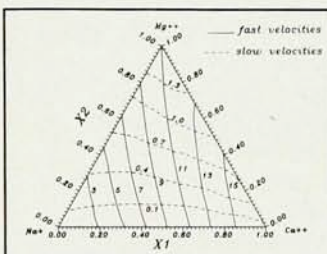
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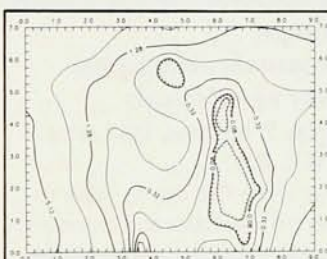
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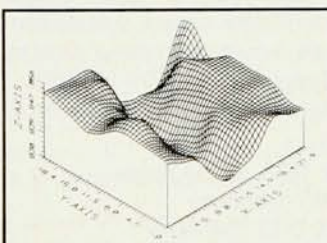
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