

Heavy Ion Drivers

I write to add a footnote to Gary Taubes' interesting article about laser fusion of 3 December (News & Comment, p. 1504).

My first involvement in reviewing this program was in 1978 when John Deutch, then director of energy research at the Department of Energy (DOE), set up a review panel chaired by John Foster to go over the entire DOE fusion program (magnetic and inertial). In three phases (known in the community as "Jaws One, Two, and Three"), the entire program was reviewed; inertial confinement fusion was identified as a serious potential competitor for power plant applications; and heavy ion drivers were identified as the most promising technology to ignite a fusion pellet, whether the applications be civilian or military. Many other suggestions with respect to the program were also made, most of which were eventually carried out. The report was classified and remains locked in a filing cabinet at DOE.

Since that time, many other reviews of the inertial fusion program have been made, and all have come to the same general conclusion as the Foster panel with respect to drivers. I personally reached the point in the mid-1980s when I refused to serve on any more review panels, because no matter what one said, the most promising approach, heavy ion drivers, continued to be starved and virtually ignored.

It is interesting to note in Taubes' article that heavy ion accelerators are still regarded as "the best bet for drivers." What is not said is that nearly 16 years after the first Foster panel report, the heavy ion program is still starved for funds, and we have made very little progress on "the best bet."

I learned one other lesson from my service on the Foster panel—never agree to serve on a classified panel that will not, at the very least, have an unclassified executive summary.

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