

RESEARCH CORPORATION
A FOUNDATION
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CHARLES H. SCHAUER
VICE PRESIDENT AND SECRETARY

April 15, 1966

Mr. Grote Reber
C.S.I.R.O.
Stowell Avenue
Hobart, Tasmania, Australia

Dear Grote:

Bill is back, all hale and hearty, and due to the brevity of his visit has me more convinced than ever that I should get there. By now I am sure you won't be holding your breath for an announcement of an immediately pending visit, however.

Jennie and I have had a lot of fun with your dead characters. As she has advised you, a possible source of synthetic ethyl alcohol had been turned up. Ethyl formate (or as we British types would have it, "eethyl") is a horse of a different color, with no dead ones in prospect.

In the course of our researches into the problem some possibly desirable alternatives were suggested. From Isotopes, Inc., for example, courtesy of their chief radio chemist, there came a suggestion of iso-butane or iso-pentane. Ray Davis, who is the lead man in low-level counting work at Brookhaven, said that they have been using ethylene as quench gas for sometime and find it superior to ethyl alcohol and its immediate successor as far as they were concerned, butene. None of the people with whom I got in touch seemed to register on ethyl formate having been used for this purpose. Indeed, there was some question that the formate part of the compound would under any circumstances conceivable to them be derived from other than an organic source. This would certainly louse up your background count. One of my telephone pals even performed a brief calculation and advised me that its inclusion on a 10 per cent quencher basis would amount to 1.6 counts per minute per liter counter.

Accordingly, we are back to a couple of questions as regards supplying Johnnie Masukane. It seems likely we would be able to get some dead ethyl alcohol, but in view of the fact that apparently they are willing and able to build geiger tubes the way you want them I'd wonder if they wouldn't be able to find a source of synthetic ethyl alcohol close at hand rather than having it shipped from here. The other question is whether

Mr. Grote Reber

-2-

April 15, 1966

another of the recommended quenchers might not be superior in any case. Ethylene, which seems to be most highly recommended, is a not-too-unusual petrochemical product which I'd think would be available in Japan. The same might well apply to the other alternatives which were suggested to me.

We'll await further word from you.

Best wishes,



Charles H. Schauer

CHS:JE

P.S. Chase Manhattan has sent in a statement of your account there (with the March 31 interest added, there is a total of \$110,625). They also sent the enclosed, which I am mailing on to you in case you want to consider converting some of your savings to a Certificate at a higher rate of interest. Regular savings seems to be just under 4%.

J.E.