

# CORNELL UNIVERSITY

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Mr. George R. Lewycky  
7 Durst Drive  
Milltown, N.J. 08850

Dear Mr. Lewycky:

Thanks for your recent letter. Enclosed is a recent review article from *Accounts of Chemical Research* on the organic chemistry of Titan. The major organic constituents of the Titanian atmosphere are almost certainly indigenous -- that is, produced there from the principal constituents of the atmosphere by ultraviolet and charged particle radiation sources. The evidence for this is in the enclosed. There might be small quantities of formaldehyde produced from CO and CO<sub>2</sub>, again, in this atmosphere. Certainly, organic matter from comets is arriving in the atmosphere of Titan as it did in the atmosphere of the primitive Earth, but I would be very surprised if this dominated indigenous energy sources. On the latter point I am enclosing two other articles, one from *Science* and one from *Nature*.

Cordially,



Carl Sagan

CS:lkp  
Enclosures