

# LETTER TO THE EDITOR



## COMMENTS ON "GAS GENERATION FROM ORGANIC TRANSURANIC WASTES. 1. ALPHA RADIOLYSIS AT ATMOSPHERIC PRESSURE"

In 1981, I published a paper on gas generation resulting from the alpha-particle radiolysis of organic transuranic (TRU) wastes.<sup>1</sup> There is an error in Table IV of Ref. 1 that presents erroneously high initial values of  $G^0$ (gas) for common materials that comprise TRU wastes. The resurgence of the importance of gas generation potential for the storage, transportation, and terminal isolation of TRU wastes caused me to reexamine the values in Table IV of Ref. 1. In calculating those values, local atmospheric pressure (580 mm) was used instead of absolute (760 mm). The corrected  $G^0$ (gas) values are presented in Table I.

Since this paper reports on the most extensive research performed to this date on the gas generation from the alpha-particle radiolysis of TRU wastes, it is important to correct these data. I thank Marilyn Warrant of Sandia National Laboratories for calling this error to my attention.

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TABLE I

Corrected  $G$  Values for Organic Materials

Material	$G^0$ (gas)
Cellulose	1.4
Polyethylene	2.0 to 2.4
Bitumen	1.1
PVC <sup>a</sup>	0.6 to 6.3
Teflon	0.04
Hypalon	0.15
Neoprene	0.04

<sup>a</sup>Includes a temperature correction.

### REFERENCE

1. S. T. KOSIEWICZ, "Gas Generation from Organic Transuranic Wastes. 1. Alpha Radiolysis at Atmospheric Pressure," *Nucl. Technol.*, **54**, 92 (1981).