

Author's Note

Burning-Rate Predictor for Multi-Ingredient Propellants: Nitrate-Ester Propellants

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BECAUSE of space limitations, the original manuscript was revised by removal of the appendices and the insertion of

**Table 1 Identity of reactions mentioned in
text by number**

Reaction number	Reaction
R3	$\text{H} + \text{NO} (+\text{M}) = \text{HNO} (+\text{M})$
R113	$\text{N}_2\text{O} + \text{H} = \text{N}_2 + \text{OH}$
R149	$\text{NH}_2 + \text{NO} = \text{N}_2 + \text{H} + \text{OH}$
R150	$\text{NH}_2 + \text{NO} = \text{N}_2 + \text{H}_2\text{O}$
R161	$\text{H} + \text{HNO} = \text{H}_2 + \text{NO}$
R181	$\text{HNCO} + \text{H} = \text{NH}_2 + \text{CO}$
R197	$\text{HCO} + \text{NO} = \text{HNO} + \text{CO}$
R222	$\text{H} + \text{CH}_4 \rightleftharpoons \text{CH}_3 + \text{H}_2$
R257	$\text{OH} + \text{CH}_4 \rightleftharpoons \text{CH}_3 + \text{H}_2\text{O}$
R333	$\text{CH}_2 + \text{NO} \rightleftharpoons \text{H} + \text{HNCO}$
R335	$\text{CH}_2 + \text{NO} \rightleftharpoons \text{H} + \text{HCNO}$
R339	$\text{CH}_3 + \text{NO} \rightleftharpoons \text{HCN} + \text{H}_2\text{O}$
R340	$\text{CH}_3 + \text{NO} \rightleftharpoons \text{H}_2\text{CN} + \text{OH}$
R341	$\text{HCNO} + \text{H} \rightleftharpoons \text{H} + \text{HNCO}$
R347	$\text{HCO} + \text{NO}_2 = \text{CO} + \text{HONO}$
R348	$\text{HCO} + \text{NO}_2 = \text{H} + \text{CO}_2 + \text{NO}$
R355	$\text{HCO} + \text{HCO} = \text{CH}_2\text{O} + \text{CO}$
R356	$\text{HCO} + \text{HCO} = \text{H}_2 + \text{CO} + \text{CO}$
R358	$\text{CH}_2\text{CO} (+\text{M}) = \text{CH}_2 + \text{CO} (+\text{M})$
R365	$\text{CH}_2\text{CO} + \text{H} = \text{CH}_3 + \text{CO}$

a note to readers that this material could be obtained by an e-mail request to the second author. Although the authors will attempt to fulfill all requests, circumstances may prevent our response to all queries. Institutional security rules delay at least briefly and, occasionally, depending on destination, prevent the sending of materials to individuals in certain regions. This situation can occur despite the appendices having been cleared for “unlimited distribution.” Also, circumstances (e.g., retirement or death) will ultimately make it difficult or impossible to contact the authors. The appendices are permanently archived in the closed literature version of this paper,¹ which most people can eventually obtain.

In the published paper, some reactions are referred to only by number, because it was thought that the Appendix tables would be immediately available. To facilitate reader comprehension in the case of delay or inability to obtain the appendices, these reactions are identified here in Table 1.

Reference

¹Miller, M. S., and Anderson, W. R., “CYCLOPS, a Breakthrough Code to Predict Solid-Propellant Burning Rates,” U.S. Army Research Laboratory Technical Report ARL-TR-2910, Feb. 2003. Note: the authors are not permitted to distribute copies of internal reports. A copy may be requested by writing: National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (see also <http://www.ntis.gov>).