

Supplementary Table S3 High-pressure-limit rate constants for the H-abstraction reactions of UDMH. Units: $\text{cm}^3 \text{mol}^{-1} \text{s}^{-1}$.

No.	Reactions	<i>A</i>	<i>n</i>	<i>E_a</i> (cal/mol)
R8	UDMH + NO ₂ = HNN(CH ₃) ₂ + HNO ₂	2.9794E+12	-0.019529	13155
R9	UDMH + NO ₂ = HNN(CH ₃) ₂ + trans-HONO	4.1914E+04	2.0872	9572.8
R10	UDMH + NO ₂ = HNN(CH ₃) ₂ + cis-HONO	1.8352E+03	2.5897	5526.5
R11	UDMH + NO ₂ = cis-H ₂ NN(CH ₃)CH ₂ + HNO ₂	3.0463E+10	0.64445	20146.0
R12	UDMH + NO ₂ = cis-H ₂ NN(CH ₃)CH ₂ + trans-HONO	6.6388E+02	2.8983	18855.0
R13	UDMH + NO ₂ = cis-H ₂ NN(CH ₃)CH ₂ + cis-HONO	6.2147E+01	3.0203	11390.0
R14	UDMH + NO ₂ = trans -H ₂ NN(CH ₃)CH ₂ + HNO ₂	2.2658E+11	0.36653	20731.0
R15	UDMH + NO ₂ = trans-H ₂ NN(CH ₃)CH ₂ + trans-HONO	2.2166E+02	3.0919	25949.0
R16	UDMH + NO ₂ = trans -H ₂ NN(CH ₃)CH ₂ + cis-HONO	5.5582E+02	2.9085	11996.0
R17	UDMH + H = HNN(CH ₃) ₂ + H ₂	5.7230E+05	2.2674	-153.67
R18	UDMH + H = cis-H ₂ NN(CH ₃)CH ₂ + H ₂	1.3877E+01	3.8634	1097.7
R19	UDMH + H = trans-H ₂ NN(CH ₃)CH ₂ + H ₂	3.9302E+00	4.0123	916.04
R20	UDMH + CH ₃ = HNN(CH ₃) ₂ + CH ₄	1.1590E-01	3.7599	2361.6
R21	UDMH + CH ₃ = cis-H ₂ NN(CH ₃)CH ₂ + CH ₄	1.4161E-03	4.4728	5672.2
R22	UDMH + CH ₃ = trans-H ₂ NN(CH ₃)CH ₂ + CH ₄	4.4874E-04	4.6451	5618.5