The interaction between the reactants and bath gas Ar was modeled by the Lennard-Jones (L-J) potential [1-3]. The L-J parameters for the products formed in the backside attack reactions on EO are taken from the online database [4]. Detailed L-J values are shown in Table S1.

Table S1. Detailed L-J values for the products formed in the backside attack reactions on EO.

Species	σ	ε
C_2H_5O	5.01	267.08
CH_3OCH_2	5.02	228.98
PC_2H_4OH	5.01	267.08
$CH_3CH_2CH_2O$	5.33	279.46
$CH_3CH_2OCH_2$	5.34	242.28
$CH_2CH_2OCH_3$	5.34	242.28
$HOCH_2CH_2O$	5.05	315.29
$HOCH_2OCH_2$	5.14	279.72
$C_2H_4O_2H$	4.41	470.60

References

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