Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Detailed quasiclassical dynamics of the $F^- + SiH_3Cl$ multi-channel reaction

Electronic Supplementary Information

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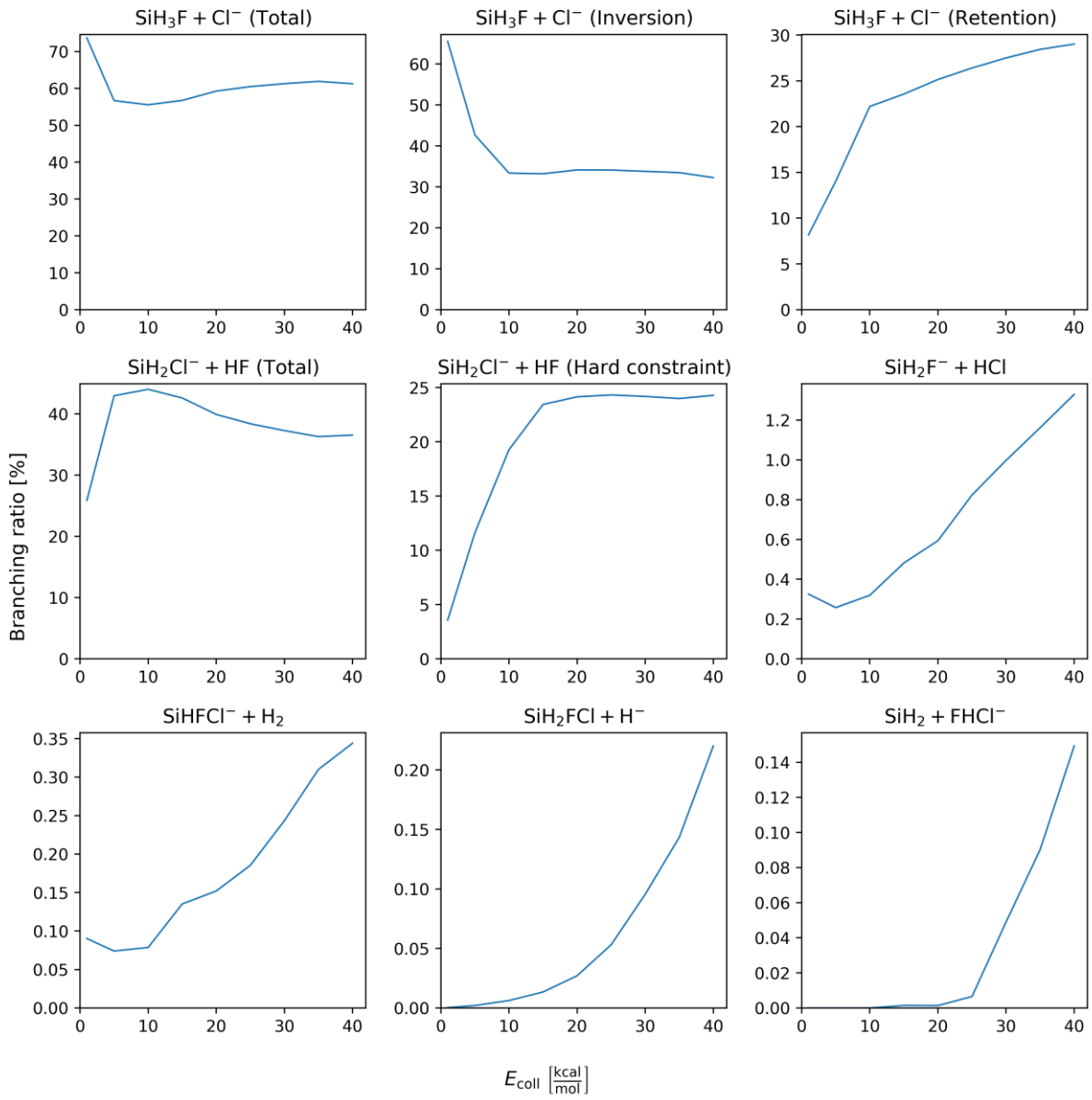

Figure S1. *Branching ratios of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy. These ratios were calculated by dividing the cross section of the given product channel (with or without constraints) by the vibrationally-unconstrained total cross section.*

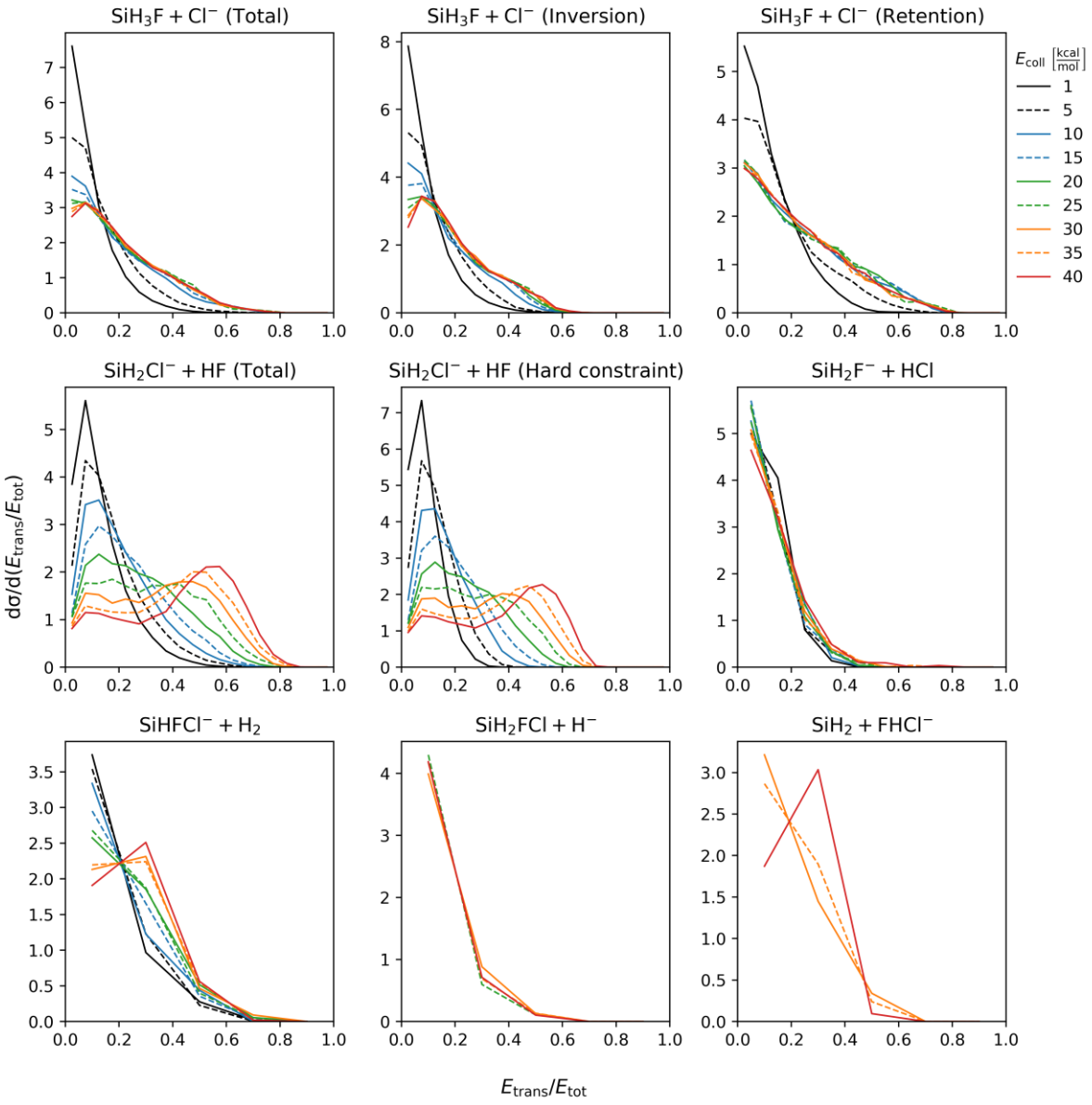

Figure S2. *E_{trans}/E_{tot} distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy.*

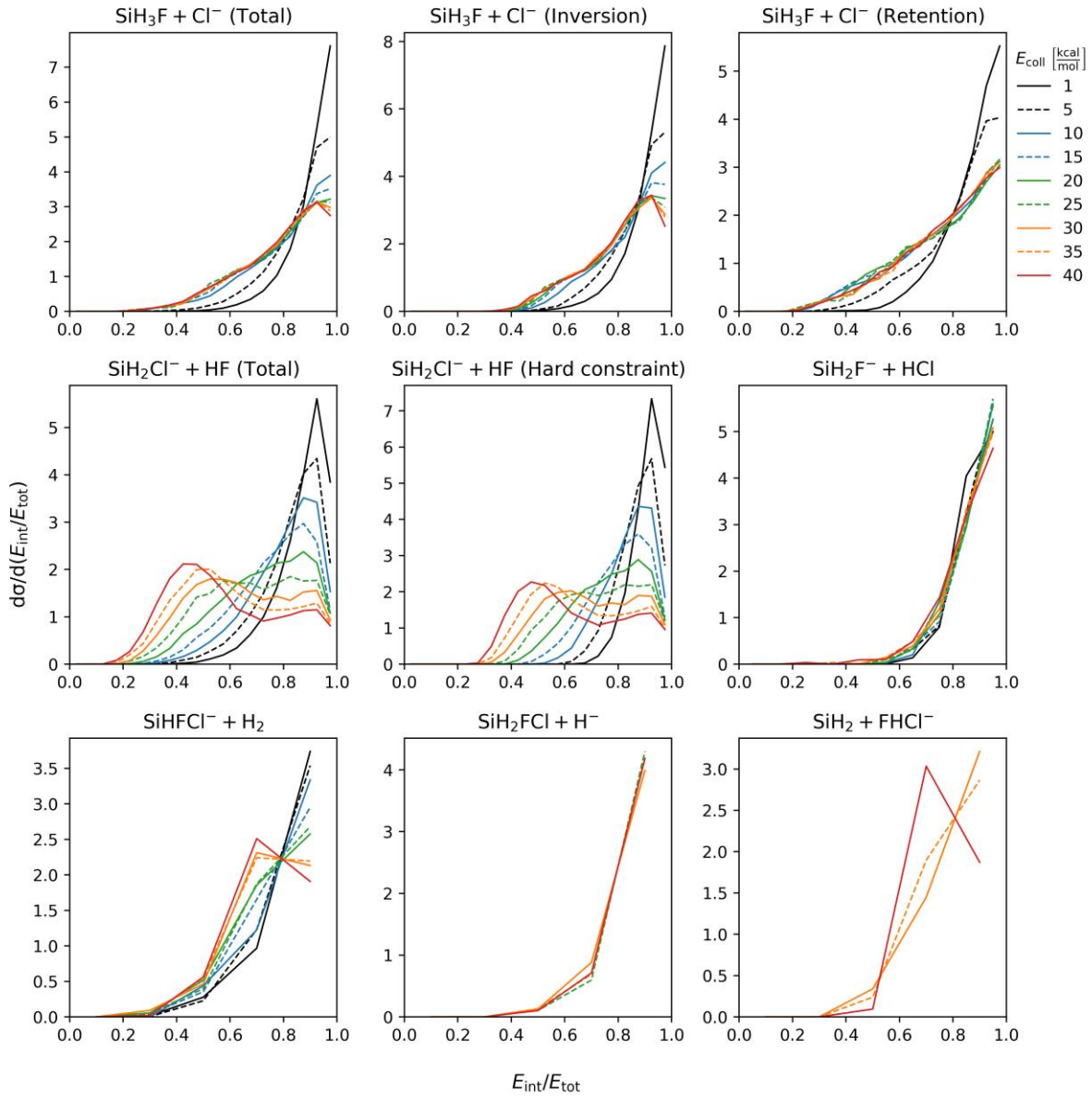

Figure S3. *E_{int}/E_{tot} distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy.*

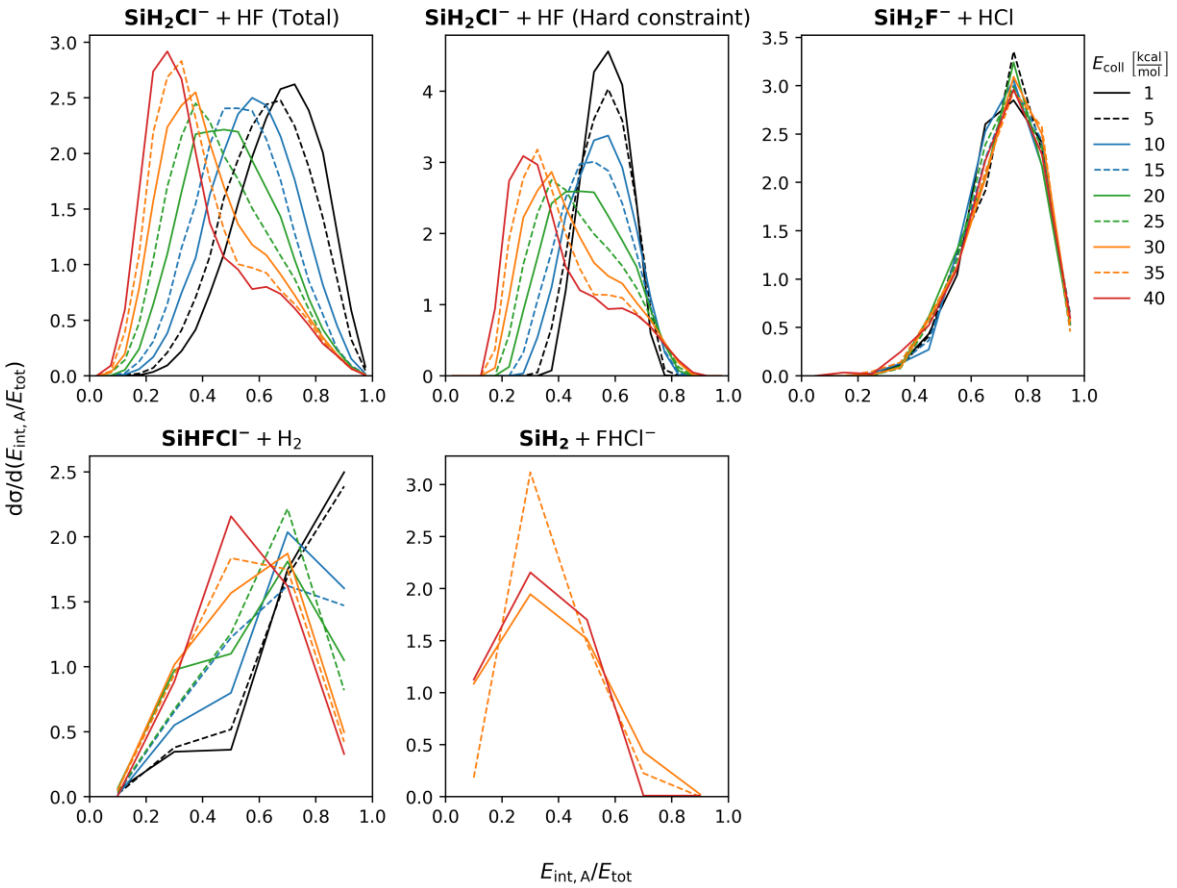

Figure S4. *$E_{int,A}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

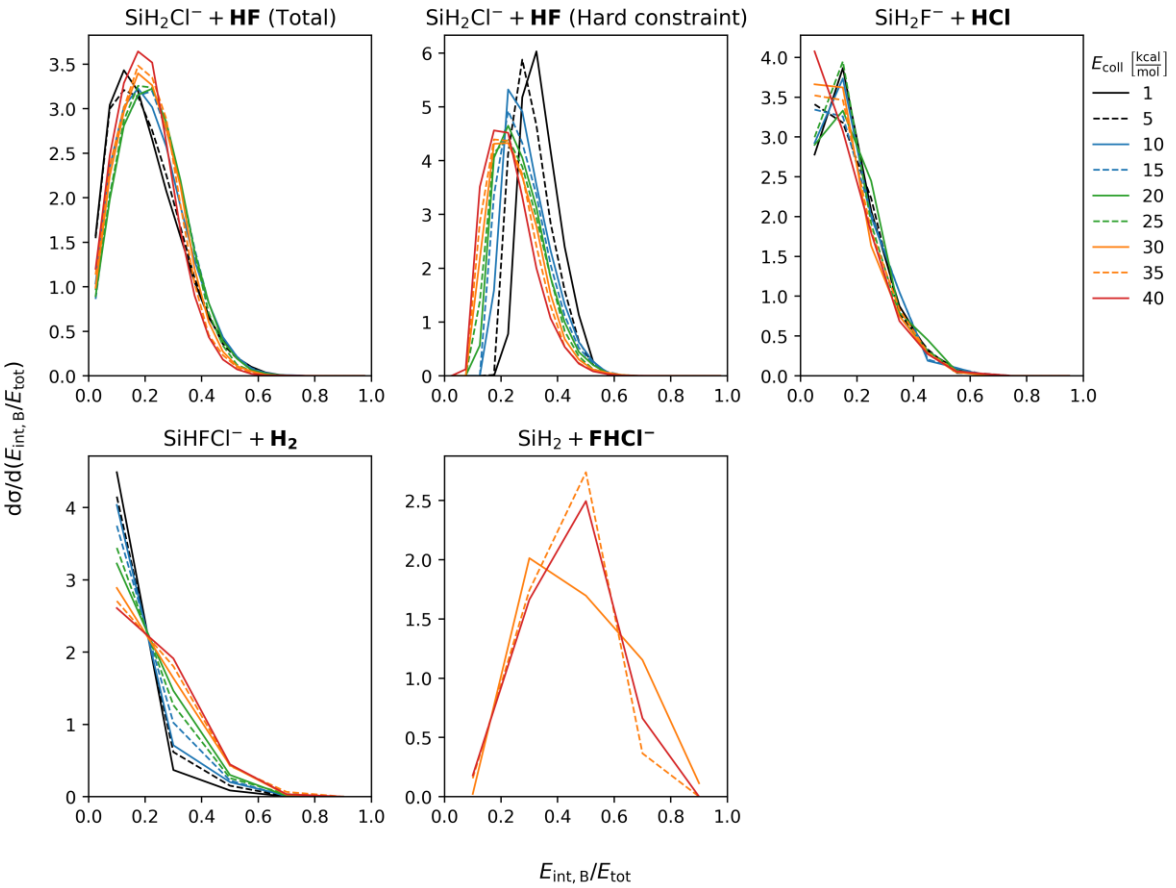

Figure S5. *$E_{int,B}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

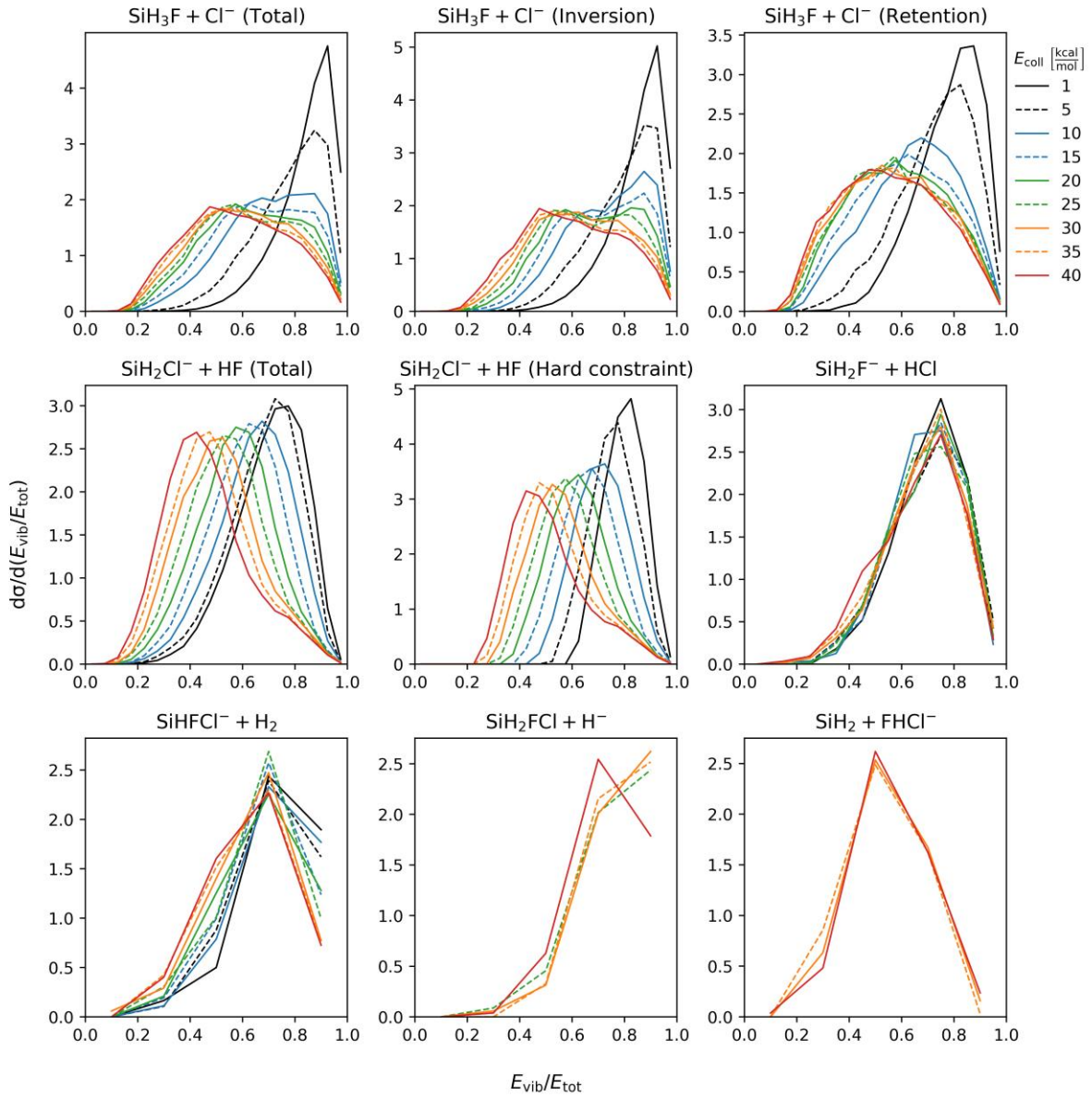

Figure S6. *E_{vib}/E_{tot} distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy.*

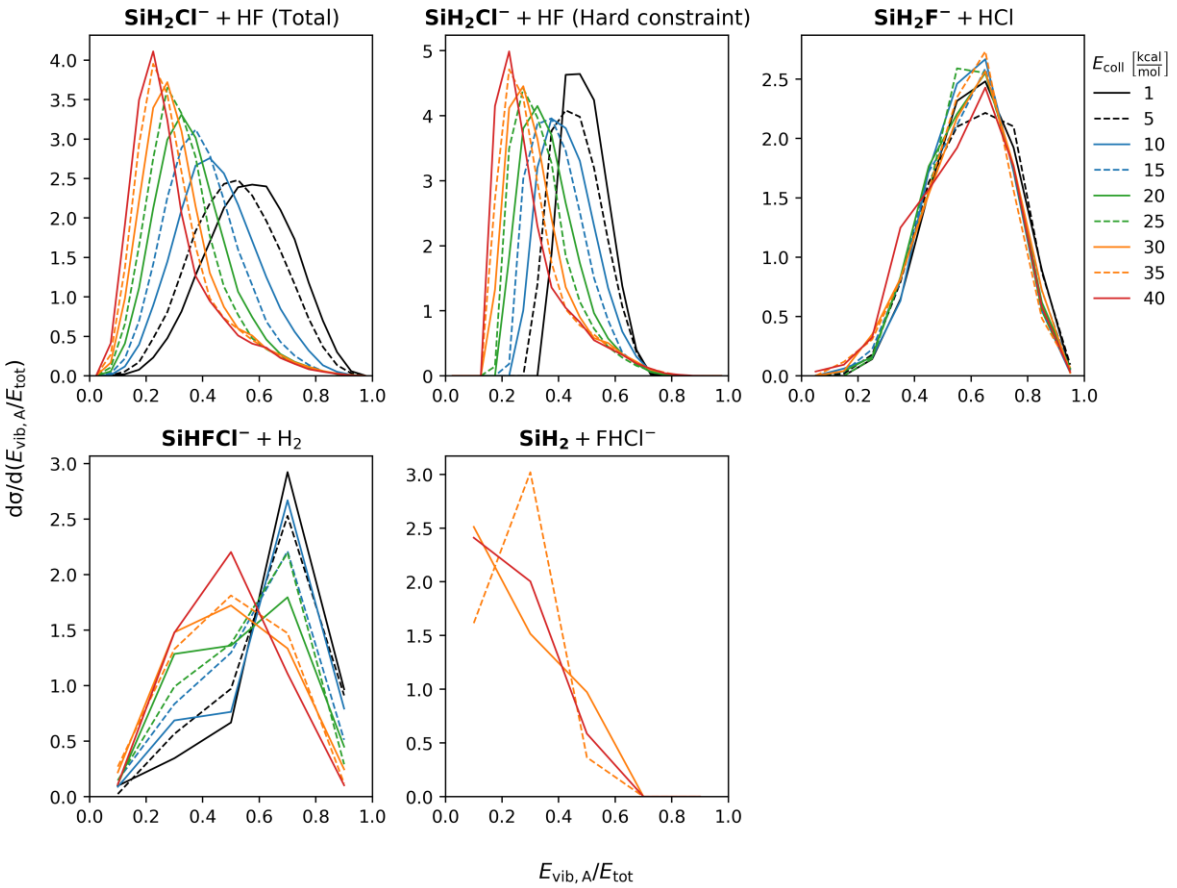

Figure S7. *$E_{vib,A}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

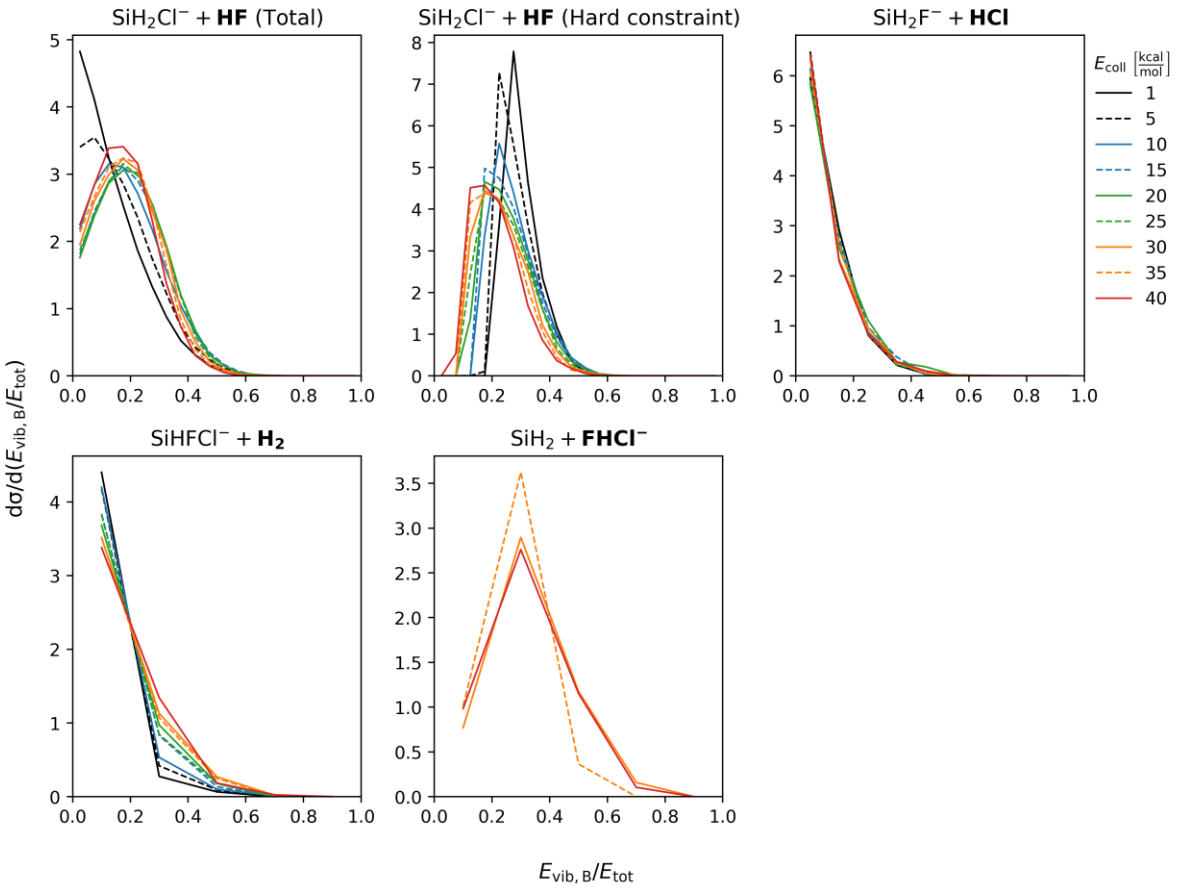

Figure S8. *$E_{vib,B}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

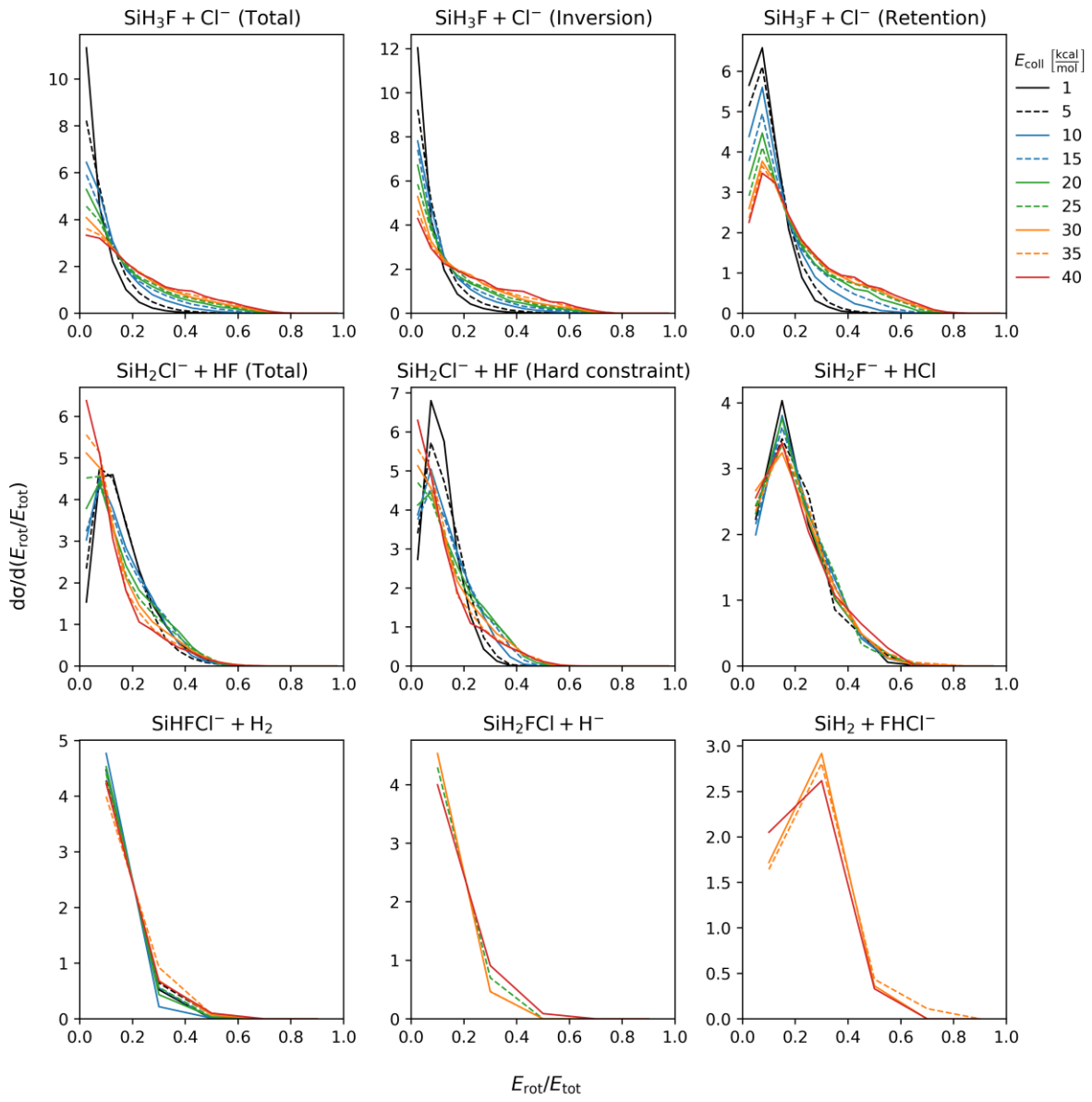

Figure S9. *E_{rot}/E_{tot} distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy.*

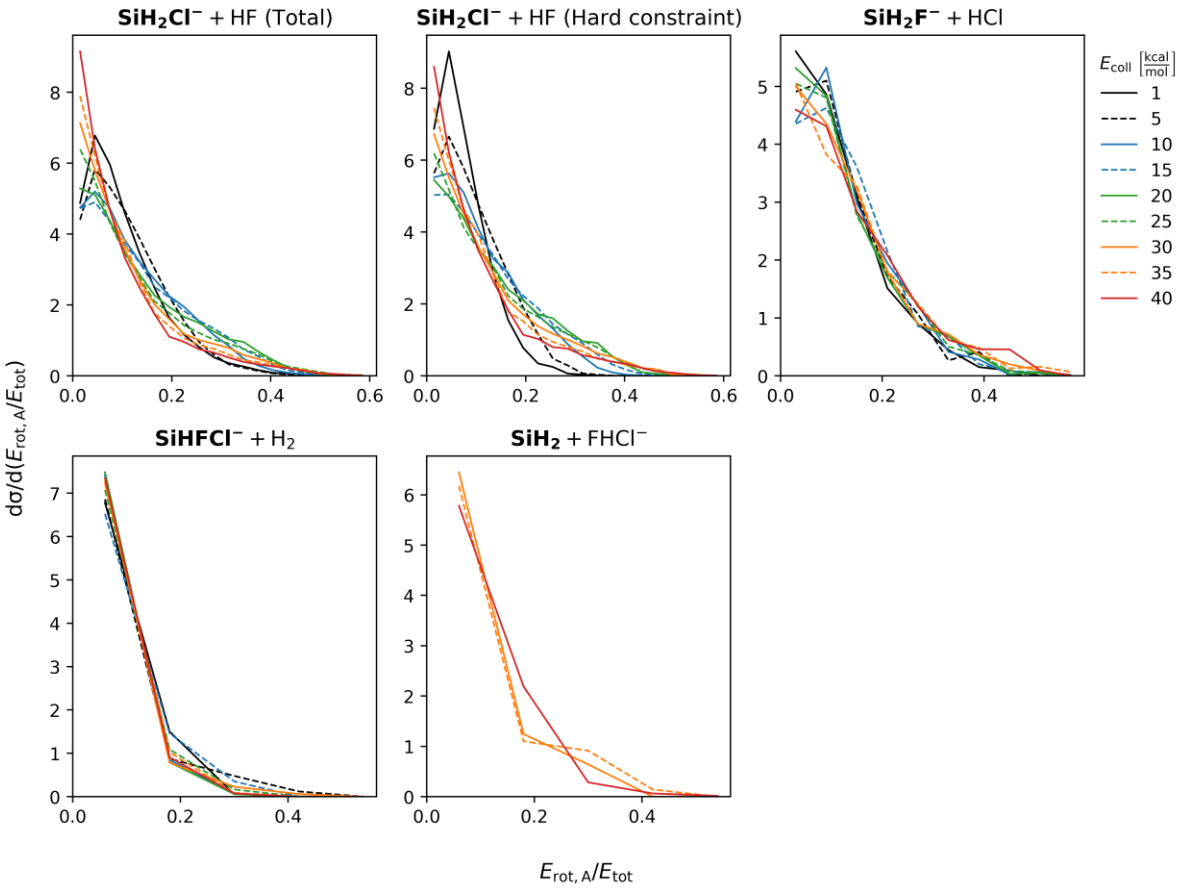

Figure S10. *$E_{rot,A}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

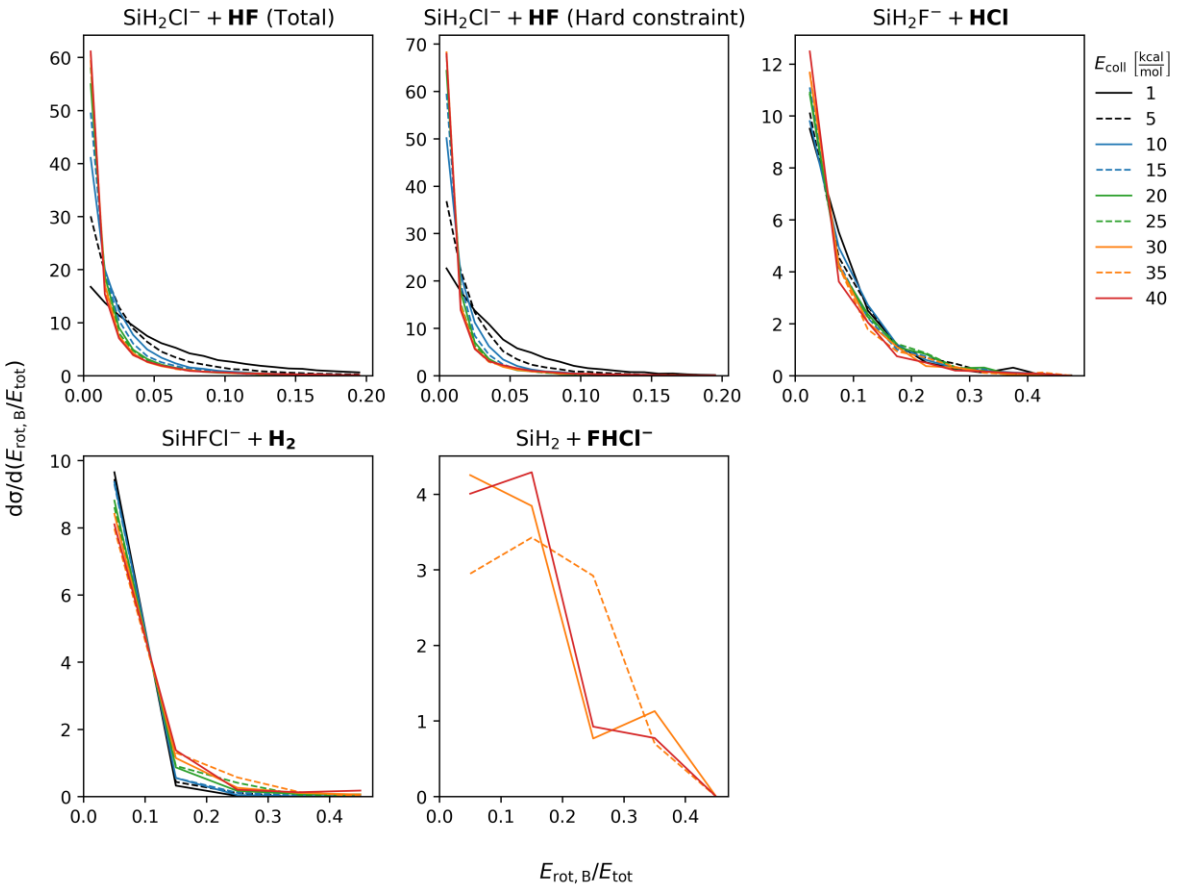

Figure S11. *$E_{rot,B}/E_{tot}$ distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy where both A and B are polyatomic.*

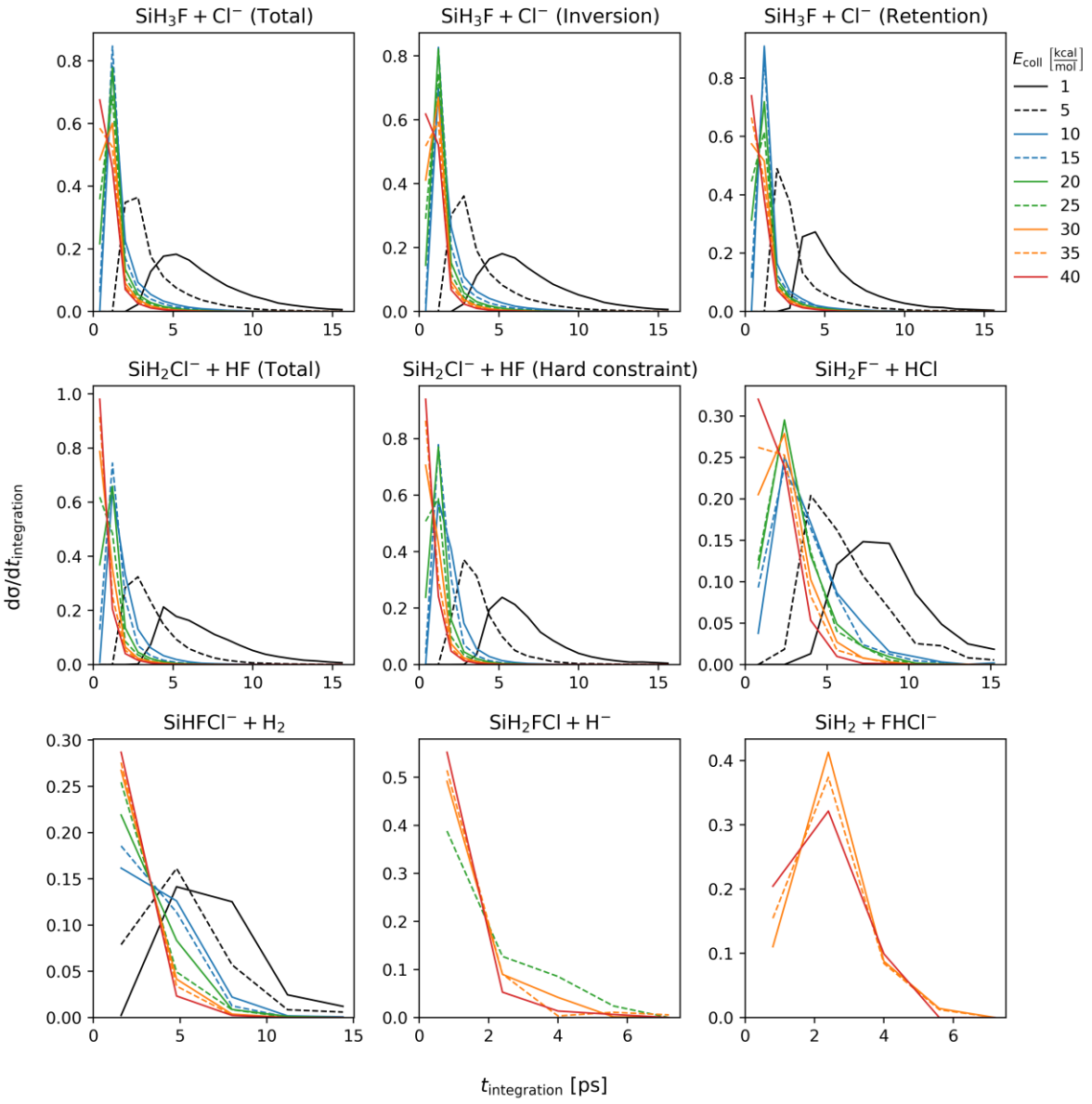

Figure S12. *Integration time distributions of the $SiH_3Cl + F^- \rightarrow A + B$ reactions as a function of collision energy.*