

Figure S1: Experiment 1 and 2: CH_3D , $T = 298\text{ K}$. Experimental data are shown using black open circles (Exp. 1) and black plus signs (Exp. 2). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

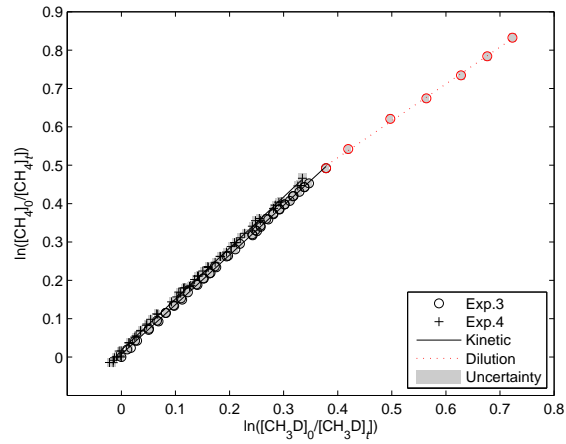


Figure S2: Experiment 3 and 4: CH_3D , $T = 278\text{ K}$. Experimental data are shown using black open circles (Exp. 3) and black plus signs (Exp. 4). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

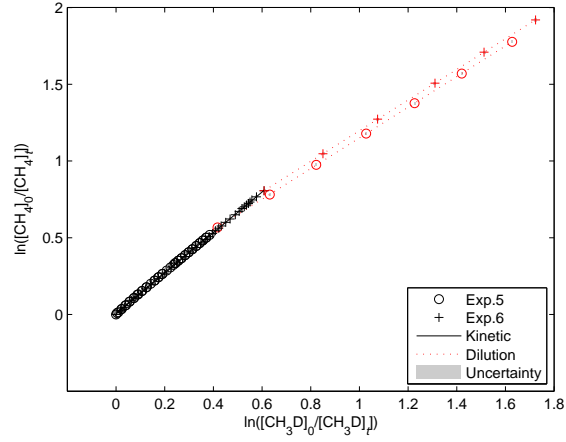


Figure S3: Experiment 5 and 6: CH_3D , $T = 288\text{ K}$. Experimental data are shown using black open circles (Exp. 5) and black plus signs (Exp. 6). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

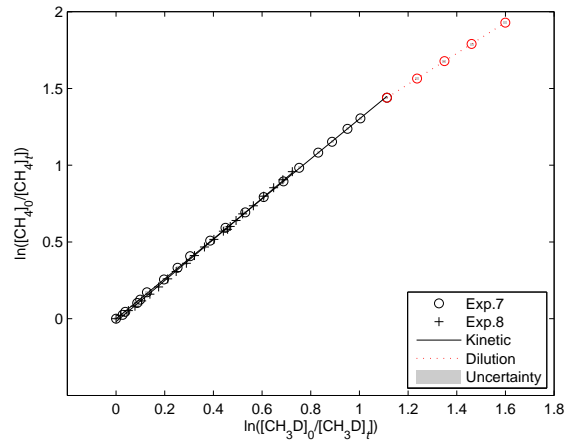


Figure S4: Experiment 7 and 8: CH_3D , $T = 313\text{ K}$. Experimental data are shown using black open circles (Exp. 7) and black plus signs (Exp. 8). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

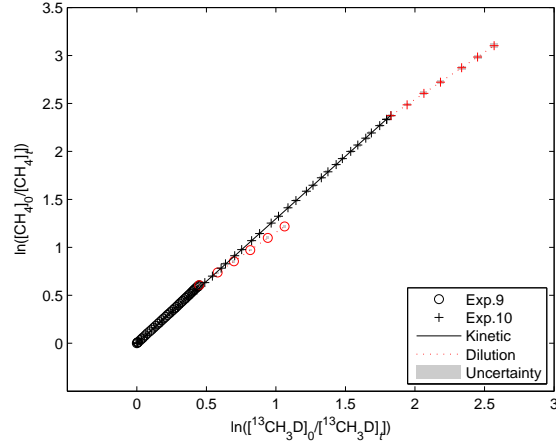


Figure S5: Experiment 9 and 10: $^{13}\text{CH}_3\text{D}$, $T = 298\text{ K}$. Experimental data are shown using black open circles (Exp. 9) and black plus signs (Exp. 10). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

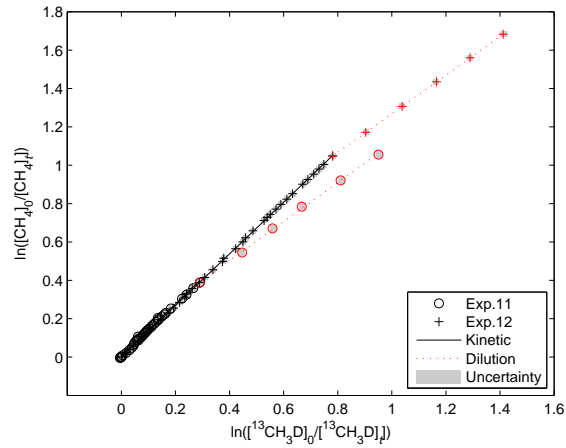


Figure S6: Experiment 11 and 12: $^{13}\text{CH}_3\text{D}$, $T = 278\text{ K}$. Experimental data are shown using black open circles (Exp. 11) and black plus signs (Exp. 12). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

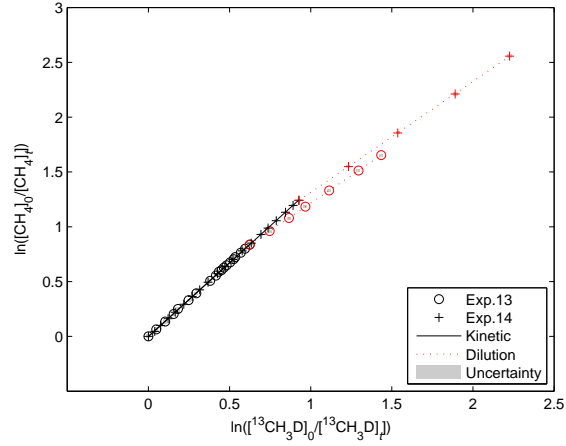


Figure S7: Experiment 13 and 14: $^{13}\text{CH}_3\text{D}$, $T = 288\text{ K}$. Experimental data are shown using black open circles (Exp. 13) and black plus signs (Exp. 14). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.

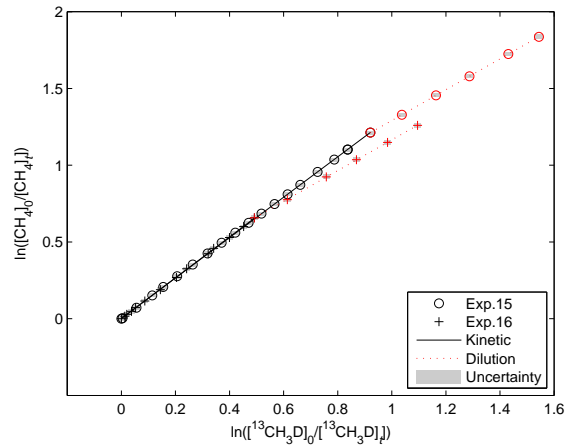


Figure S8: Experiment 15 and 16: $^{13}\text{CH}_3\text{D}$, $T = 313\text{ K}$. Experimental data are shown using black open circles (Exp. 15) and black plus signs (Exp. 16). Corresponding dilution test points are shown using red symbols. A linear fit of the experimental points is shown using a black solid line and linear fit of the subsequent dilution test are represented by a red dotted line, uncertainties for each point are represented by grey areas.