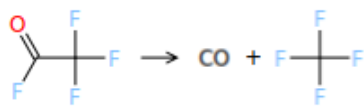


## 8 reactions matched to 1,2\_Insertion\_CO

index: 18



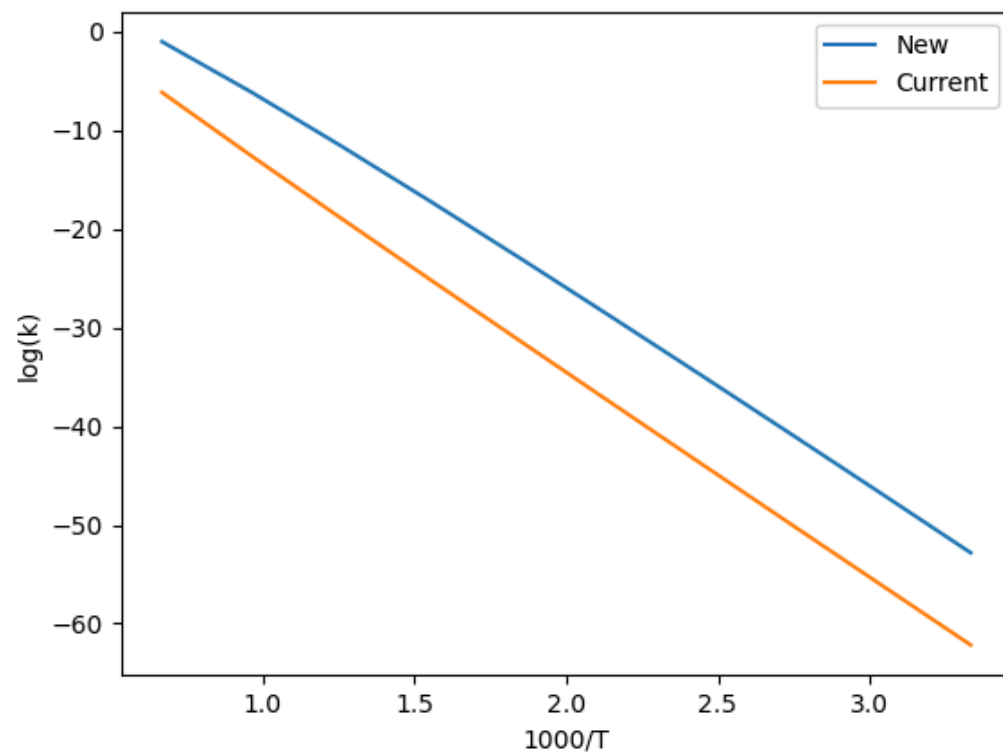
**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

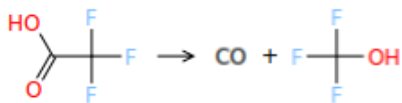
Arrhenius( $A=(8.99\text{e}+36, \text{s}^{-1})$ ,  $n=-7.46$ ,  $E_a=(97870, \text{cal/mol})$ ,  $T_0=(1, \text{K})$ )

**Current Kinetics**

ArrheniusBM( $A=(0.0107824, \text{m}^3/(\text{mol}\cdot\text{s}))$ ,  $n=2.93313$ ,  $w_0=(794.5, \text{kJ/mol})$ ,  $E_0=(387.509, \text{kJ/mol})$ ,  $T_{\text{min}}=(300, \text{K})$ ,  $T_{\text{max}}=(2000, \text{K})$ ,  $\text{uncertainty}=\text{RateUncertainty}(\mu=0.0, \text{var}=33.13686319048999, T_{\text{ref}}=1000.0, N=1, \text{data\_mean}=0.0, \text{correlation}=\text{'Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s'})$ ,  $\text{comment}=\text{'\"\"\"Estimated from node Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s Multiplied by reaction path degeneracy 4.0\"\"\"'}$ )



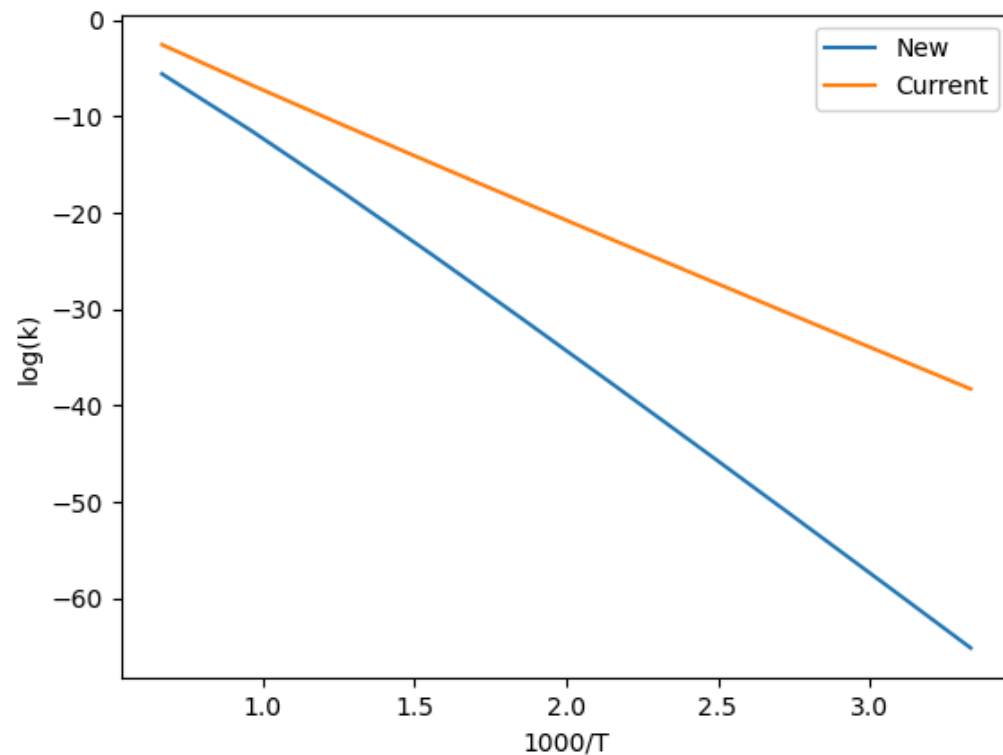
index: 26



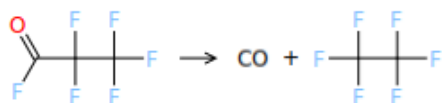
**Note: Training reaction written in opposite direction from reaction family.**

## Arrhenius(A=(2.83e+37,'s^-1'), n=-8.4, Ea=(112300,'cal/mol'), T0=(1,'K'))

```
ArrheniusBM(A=(0.000742267,'m^3/(mol*s)'), n=2.83796, w0=
(753.2,'kJ/mol'), E0=(242.307,'kJ/mol'), Tmin=(300,'K'), Tmax=(2000,'K'),
uncertainty=RateUncertainty(mu=1.2632766423807829,
var=145.9379134136138, Tref=1000.0, N=5, data_mean=0.0,
correlation='Root_N-1COCbCdCsCtHNOSSidSis->Cs'),
comment="""Estimated from node Root_N-1COCbCdCsCtHNOSSidSis-
>Cs""")
```



index: 44



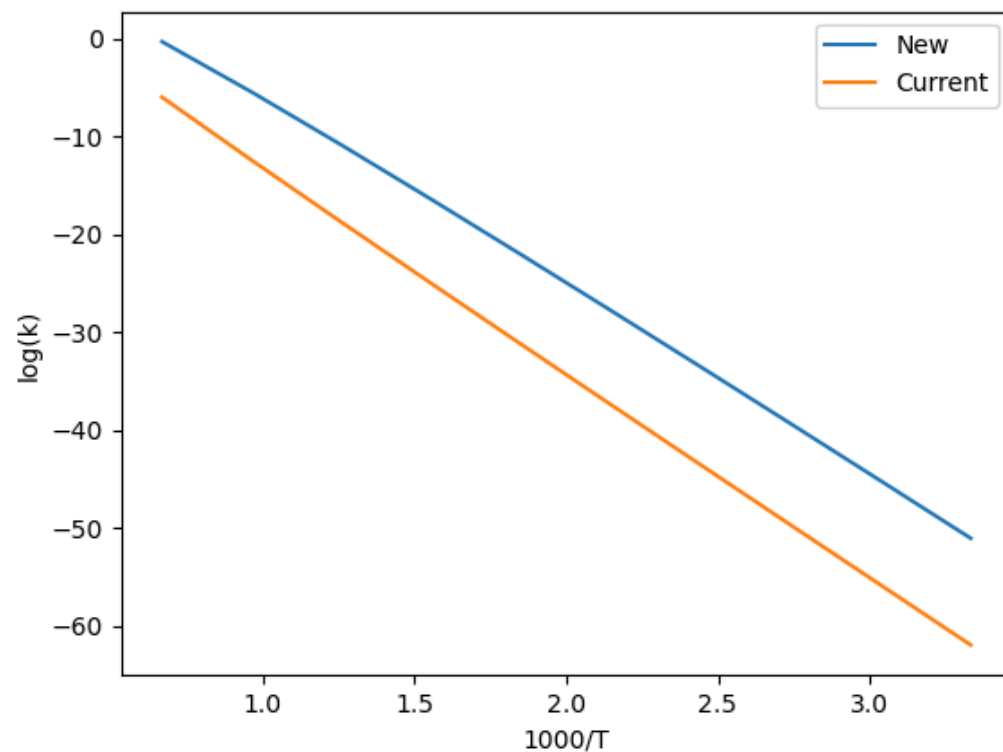
**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

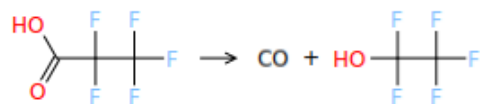
Arrhenius( $A=(6.86e+31, 's^{-1}')$ ,  $n=-5.8$ ,  $E_a=(94100, 'cal/mol')$ ,  $T_0=(1, 'K')$ )

**Current Kinetics**

ArrheniusBM( $A=(0.0161736, 'm^3/(mol*s)')$ ,  $n=2.93313$ ,  $w_0=(794.5, 'kJ/mol')$ ,  $E_0=(387.509, 'kJ/mol')$ ,  $T_{min}=(300, 'K')$ ,  $T_{max}=(2000, 'K')$ ,  $uncertainty=RateUncertainty(mu=0.0, var=33.13686319048999)$ ,  $T_{ref}=1000.0$ ,  $N=1$ ,  $data\_mean=0.0$ ,  $correlation='Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s')$ ,  $comment=""$ Estimated from node  $Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s$  Multiplied by reaction path degeneracy 6.0""")



index: 69



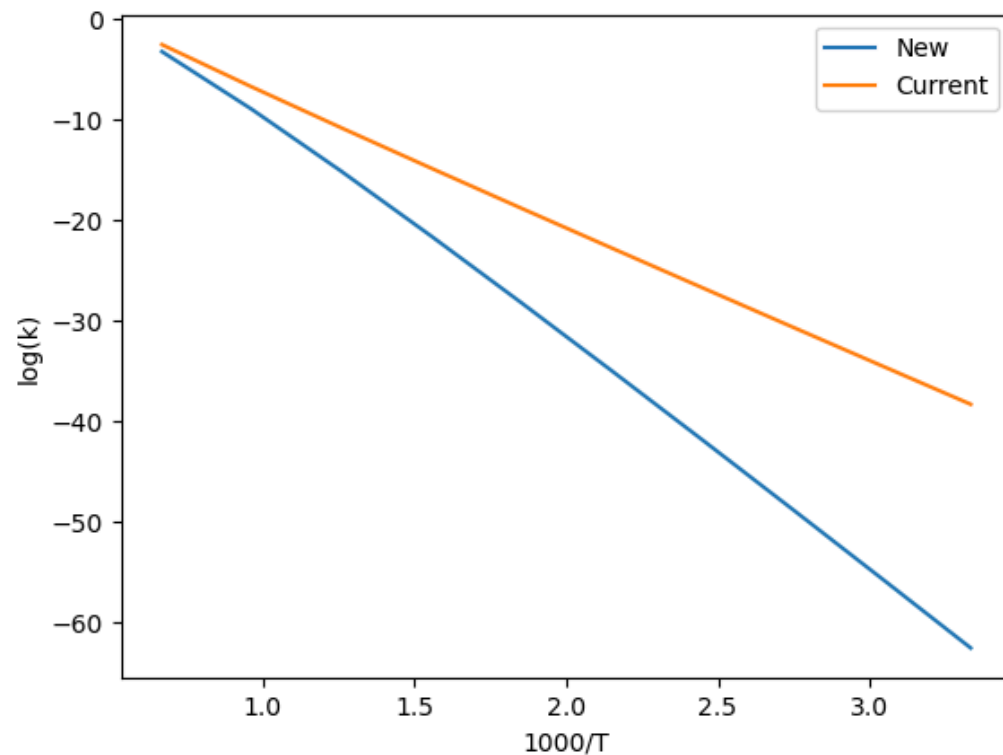
**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

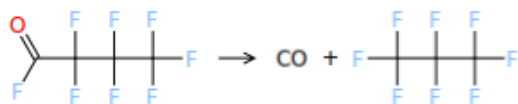
Arrhenius( $A=(1.91\text{e}+46, \text{s}^{-1})$ ,  $n=-10.36$ ,  $E_a=(114100, \text{cal/mol})$ ,  $T_0=(1, \text{K})$ )

**Current Kinetics**

ArrheniusBM( $A=(0.000742267, \text{m}^3/(\text{mol}\cdot\text{s}))$ ,  $n=2.83796$ ,  $w_0=(753.2, \text{kJ/mol})$ ,  $E_0=(242.307, \text{kJ/mol})$ ,  $T_{\text{min}}=(300, \text{K})$ ,  $T_{\text{max}}=(2000, \text{K})$ ,  $\text{uncertainty}=\text{RateUncertainty}(\mu=1.2632766423807829$ ,  $\text{var}=145.9379134136138$ ,  $T_{\text{ref}}=1000.0$ ,  $N=5$ ,  $\text{data\_mean}=0.0$ ,  $\text{correlation}=\text{'Root\_N-1COCbCdCsCtHNOSSidSis->Cs'}$ ),  $\text{comment}=\text{'\"\"\"Estimated from node Root\_N-1COCbCdCsCtHNOSSidSis->Cs\"\"\"}'$ )



index: 91



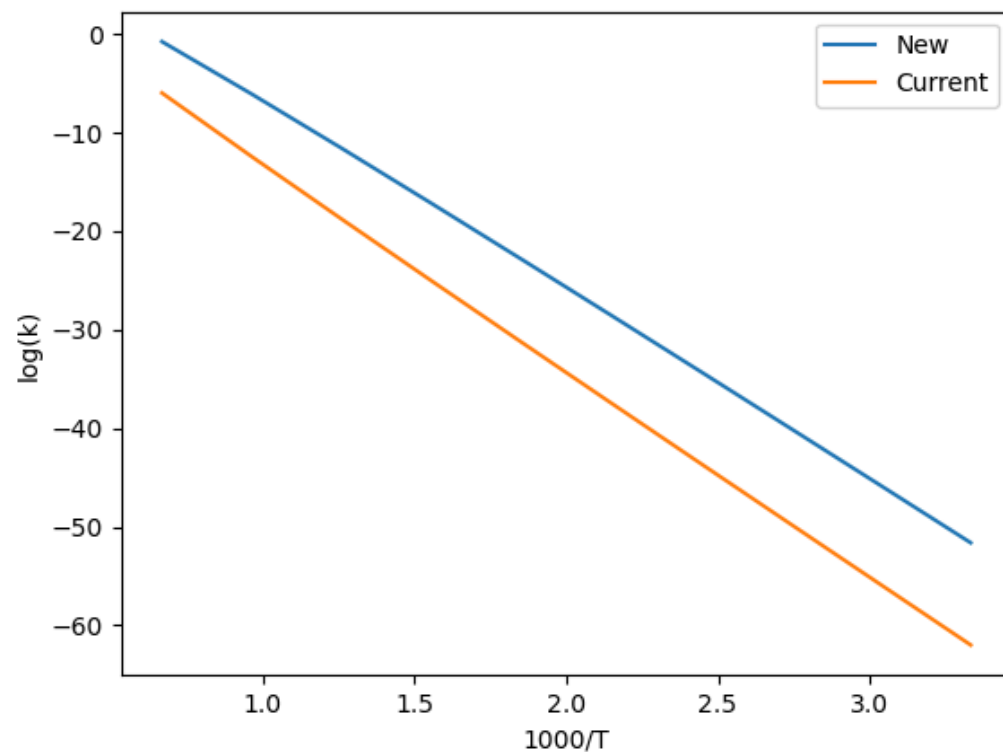
**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

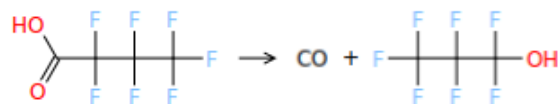
Arrhenius( $A=(1.55e+25, 's^{-1}')$ ,  $n=-3.95$ ,  $E_a=(92010, 'cal/mol')$ ,  $T_0=(1, 'K')$ )

**Current Kinetics**

ArrheniusBM( $A=(0.0161736, 'm^3/(mol*s)')$ ,  $n=2.93313$ ,  $w_0=(794.5, 'kJ/mol')$ ,  $E_0=(387.509, 'kJ/mol')$ ,  $T_{min}=(300, 'K')$ ,  $T_{max}=(2000, 'K')$ ,  $uncertainty=RateUncertainty(mu=0.0, var=33.13686319048999)$ ,  $T_{ref}=1000.0$ ,  $N=1$ ,  $data\_mean=0.0$ ,  $correlation='Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s')$ ,  $comment=""$ Estimated from node  $Root\_1COCbCdCsCtHNOSSidSis->Cs\_N-2Br1sCbCdCl1sCsCtF1sHI1sNSSidSis->Cs\_Ext-1Cs-R\_2Br1sCl1sF1sH->F1s$  Multiplied by reaction path degeneracy 6.0""")



index: 120



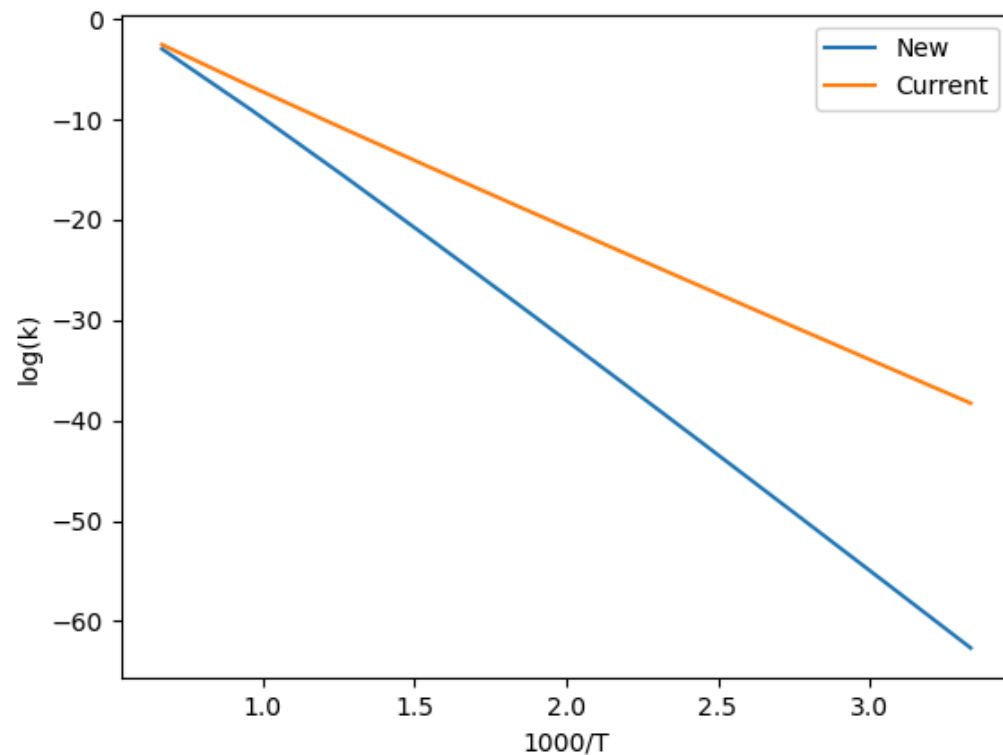
**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

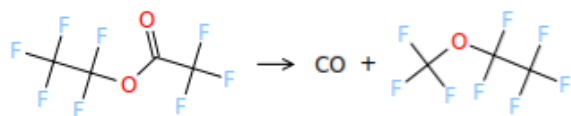
Arrhenius( $A=(1.14\text{e}+33, \text{'s}^{-1}\text{'})$ ,  $n=-6.3$ ,  $E_a=(110000, \text{'cal/mol'})$ ,  $T_0=(1, \text{'K'})$ )

**Current Kinetics**

ArrheniusBM( $A=(0.000742267, \text{'m}^3/(\text{mol}\cdot\text{s})\text{'})$ ,  $n=2.83796$ ,  $w_0=(753.2, \text{'kJ/mol'})$ ,  $E_0=(242.307, \text{'kJ/mol'})$ ,  $T_{\min}=(300, \text{'K'})$ ,  $T_{\max}=(2000, \text{'K'})$ ,  $\text{uncertainty}=\text{RateUncertainty}(\mu=1.2632766423807829$ ,  $\text{var}=145.9379134136138$ ,  $T_{\text{ref}}=1000.0$ ,  $N=5$ ,  $\text{data\_mean}=0.0$ ,  $\text{correlation}=\text{'Root\_N-1COCbCdCsCtHNOSSidSis->Cs'}$ ),  $\text{comment}=\text{'\"\"\"Estimated from node Root\_N-1COCbCdCsCtHNOSSidSis->Cs\"\"\"}'$ )



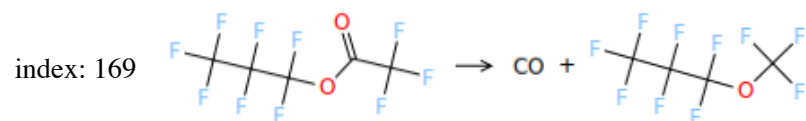
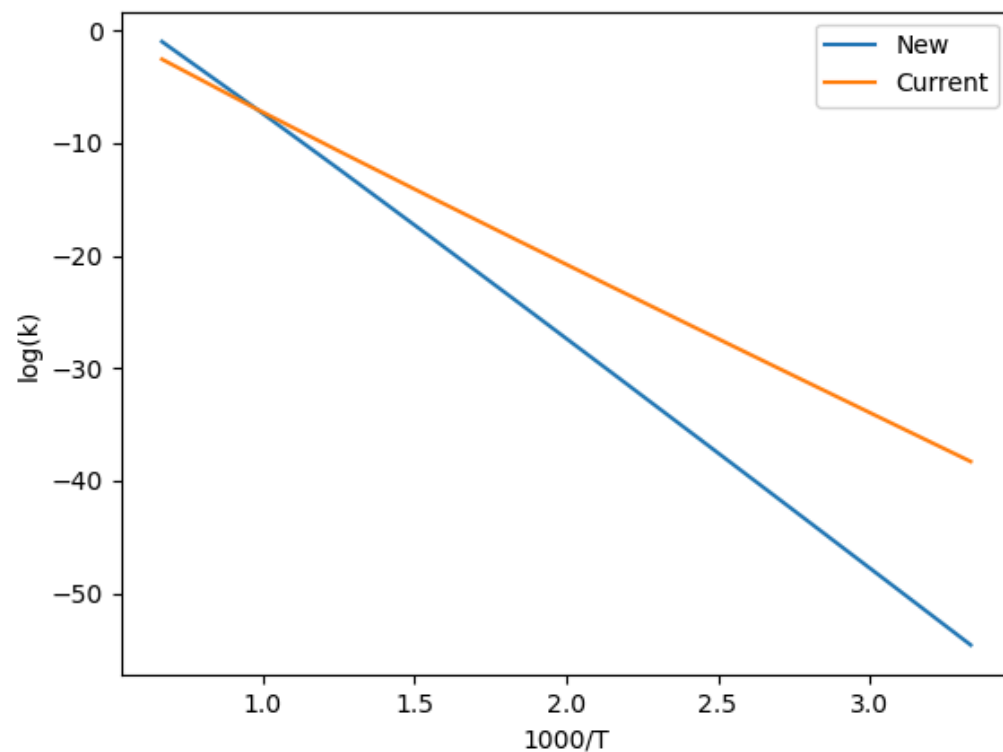
index: 127



**Note: Training reaction written in opposite direction from reaction family.**

## Arrhenius(A=(4e+23,'s^-1'), n=-3.34, Ea=(95970,'cal/mol'), T0=(1,'K'))

```
ArrheniusBM(A=(0.000742267,'m^3/(mol*s)'), n=2.83796, w0=
(753.2,'kJ/mol'), E0=(242.307,'kJ/mol'), Tmin=(300,'K'), Tmax=(2000,'K'),
uncertainty=RateUncertainty(mu=1.2632766423807829,
var=145.9379134136138, Tref=1000.0, N=5, data_mean=0.0,
correlation='Root_N-1COCbCdCsCtHNOSSidSis->Cs'),
comment="""Estimated from node Root_N-1COCbCdCsCtHNOSSidSis-
>Cs""")
```



**Note: Training reaction written in opposite direction from reaction family.**

**New Kinetics:**

Arrhenius( $A=(2.29 \times 10^{30}, \text{s}^{-1})$ ,  $n=-5.75$ ,  $E_a=(98980, \text{cal/mol})$ ,  $T_0=(1, \text{K})$ )

**Current Kinetics**

ArrheniusBM( $A=(0.000742267, \text{m}^3/(\text{mol} \cdot \text{s}))$ ,  $n=2.83796$ ,  $w_0=(753.2, \text{kJ/mol})$ ,  $E_0=(242.307, \text{kJ/mol})$ ,  $T_{\min}=(300, \text{K})$ ,  $T_{\max}=(2000, \text{K})$ ,  
 uncertainty=RateUncertainty( $\mu=1.2632766423807829$ ,  
 $\text{var}=145.9379134136138$ ,  $T_{\text{ref}}=1000.0$ ,  $N=5$ ,  $\text{data\_mean}=0.0$ ,  
 correlation='Root\_N-1COCbCdCsCtHNOSSidSis->Cs'),  
 comment="" "Estimated from node Root\_N-1COCbCdCsCtHNOSSidSis->Cs" "" )

