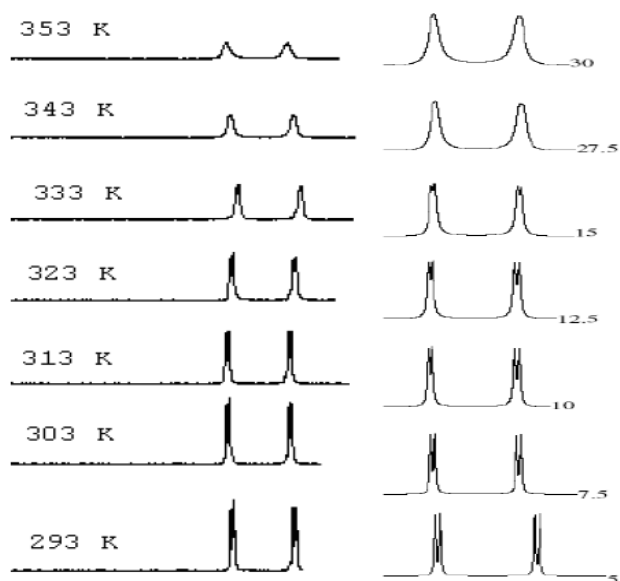
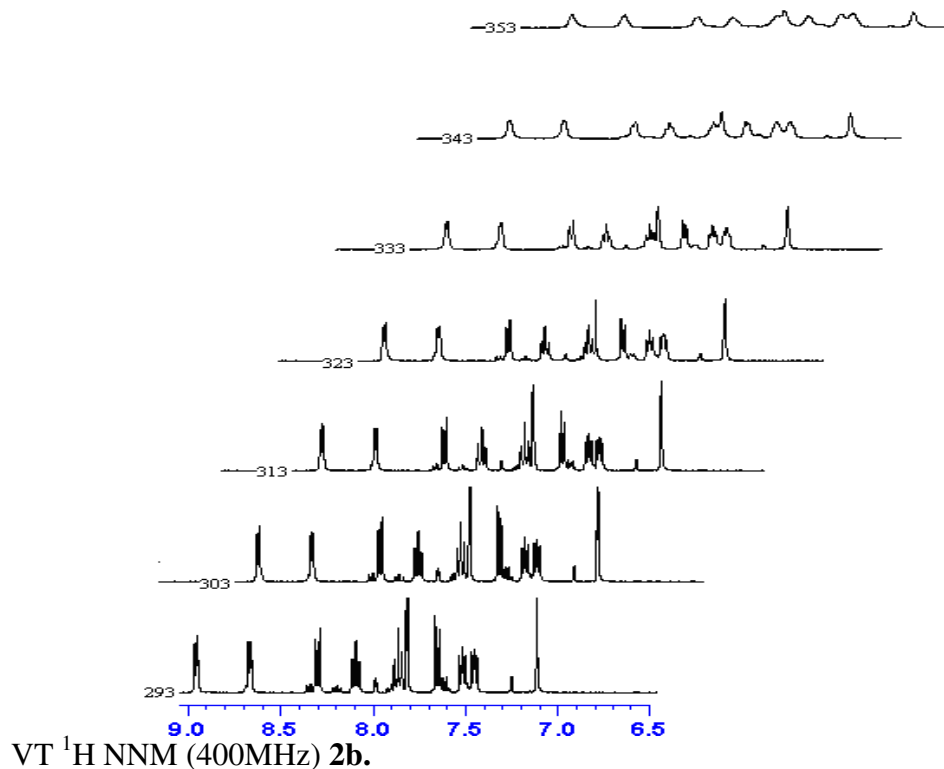


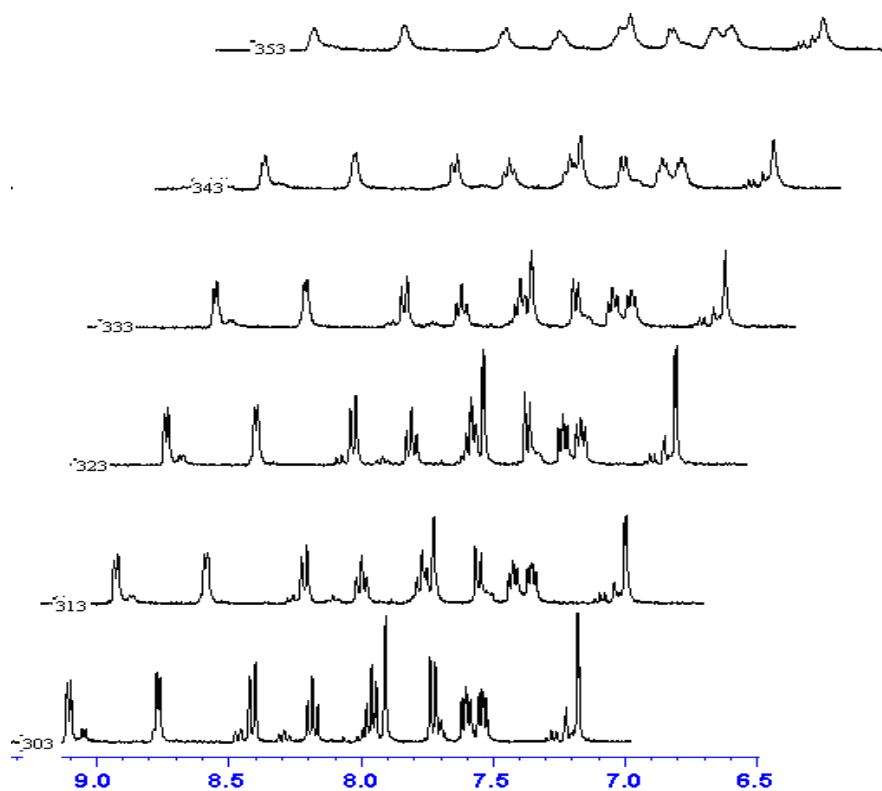
Vanesa Fernandez-Moreira, Flora L. Thorp-Greenwood, Richard J. Arthur, Benson M. Kariuki, Robert L. Jenkins and Michael P. Coogan.

Rhenium Tricarbonyl Terpyridine Complexes: Evidence For An Associative Mechanism and Correlation of Fluxionality and Lability In Complexes Of 2,6-Bis(2'-pyridyl)-4-pyridone.

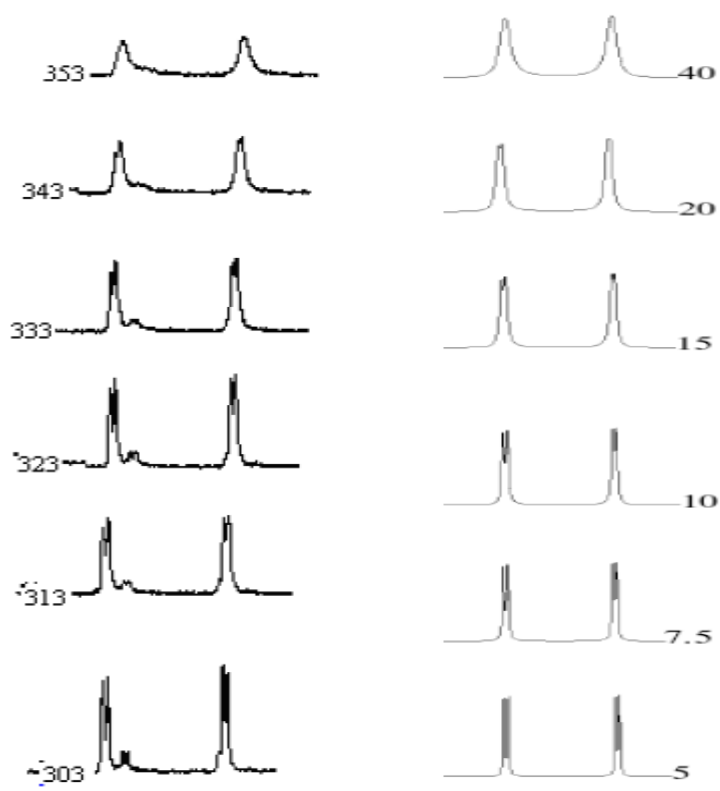
Supporting information.



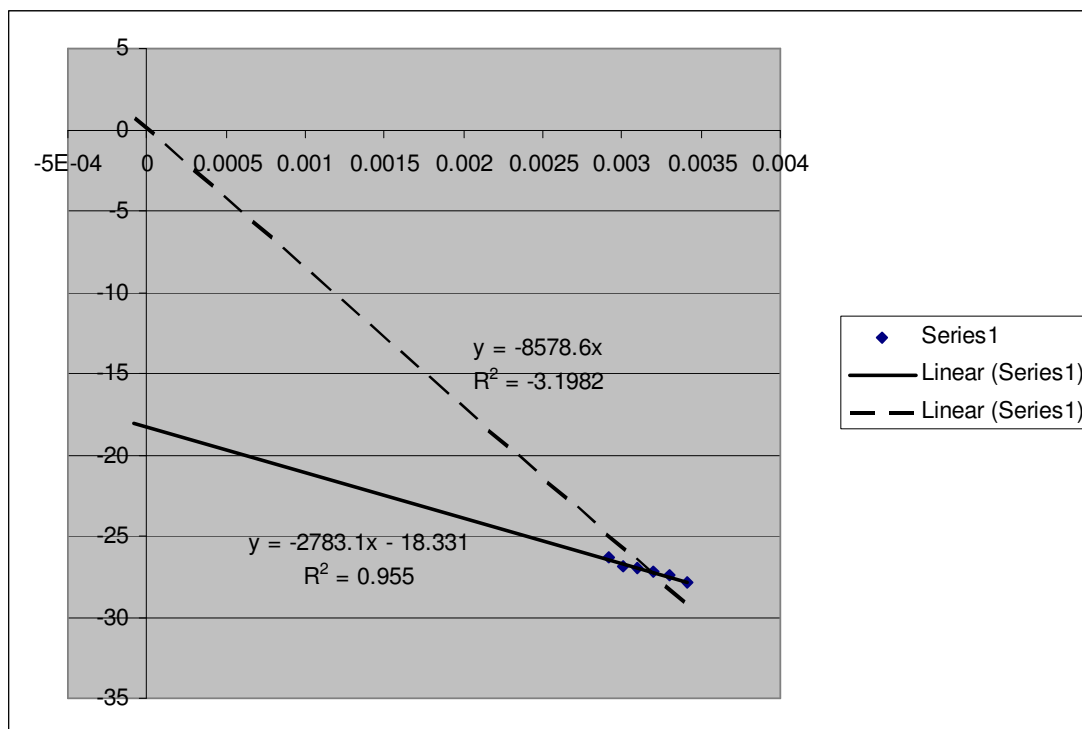
Experimental left, T (K) and simulated, right k (s⁻¹) lineshapes for **2b**.



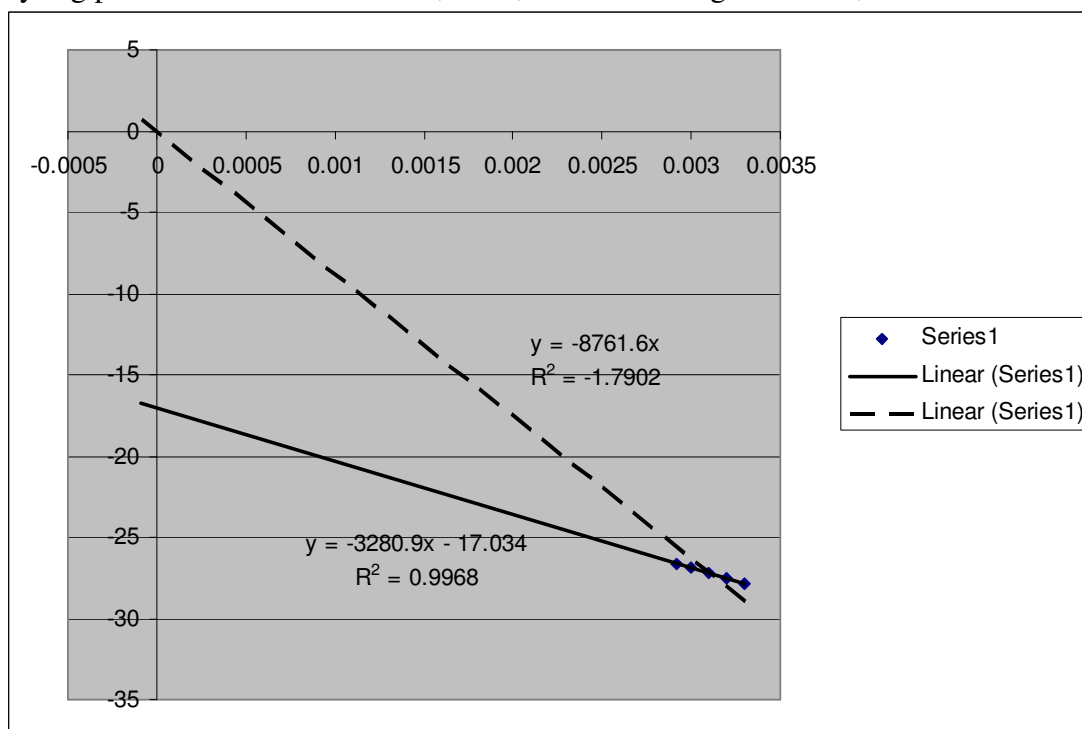
VT ¹H NMR (400MHz) **2c**.



Experimental left, T (K) and simulated, right k (s⁻¹) lineshapes for **2c**.



Eyring plot for **2b**. Line of best fit, solid; line forced to give $\Delta S^\ddagger = 0$, dotted.



Eyring plot for **2c**. Line of best fit, solid; line forced to give $\Delta S^\ddagger = 0$, dotted.

SpinWorks Spin System Files (plain text format) used for lineshape matching

2a

```
# optimize=no
autoassign=yes
autoignore=yes
iterations=30
rmslimit=0.0200
assignrms=0.1000
assignlimit=1.9200
ignorelimit=2.4000
rangefraction=0.2500
assignmod=2
```

NUMMRIT spin system file generated by SpinWorks 3

```
species=1
1 3592.0000 name=A
1 3476.0000 name=B
1 3008.0000 name=C
1 2984.0000 name=D
```

```
j(A,C) 5.50000
j(B,D) 4.60000
```

```
##$T2= 1
##$SRC[1][2]= 10
##$SRC[1][3]= 0
##$SRC[2][3]= 0
##$MU= 1
##$NCONFIG= 2
##$PVEC2= 2 1 4 3 0
##$LWIDTH= 1
```

2b

```
# optimize=no
autoassign=yes
autoignore=yes
iterations=30
rmslimit=0.0200
assignrms=0.1000
assignlimit=1.9200
ignorelimit=2.4000
rangefraction=0.2500
assignmod=2
```

NUMMRIT spin system file generated by SpinWorks 3

```
species=1
1 3623.0000 name=A
```

```
species=2
1 3511.0000 name=C
```

```
species=1
1 3059.0000 name=B
```

```
species=2
1 3027.0000 name=D
```

```
j(A,B) 5.40000
j(C,D) 6.00000
```

```
##$T2= 1  
##$RC[1][2]= 0  
##$RC[1][3]= 0  
##$RC[2][3]= 0  
##$MU= 1  
##$NCONFIG= 2  
##$PVEC2= 0 0 0 0 0  
##$LWIDTH= 1
```

2c

```
# optimize=no  
autoassign=yes  
autoignore=yes  
iterations=30  
rmslimit=0.0200  
assignrms=0.1000  
assignlimit=1.9200  
ignorelimit=2.4000  
rangefraction=0.2500  
assignmod=2
```

NUMMRIT spin system file generated by SpinWorks 3

```
species=1  
1 3648.0000 name=A  
1 3512.0000 name=B  
1 3016.0000 name=C  
1 2876.0000 name=D
```

```
j(A,C) 5.20000  
j(B,D) 4.30000
```

```
##$T2= 1  
##$RC[1][2]= 10  
##$RC[1][3]= 0  
##$RC[2][3]= 0  
##$MU= 1  
##$NCONFIG= 2  
##$PVEC2= 2 1 4 3 0  
##$LWIDTH= 1
```