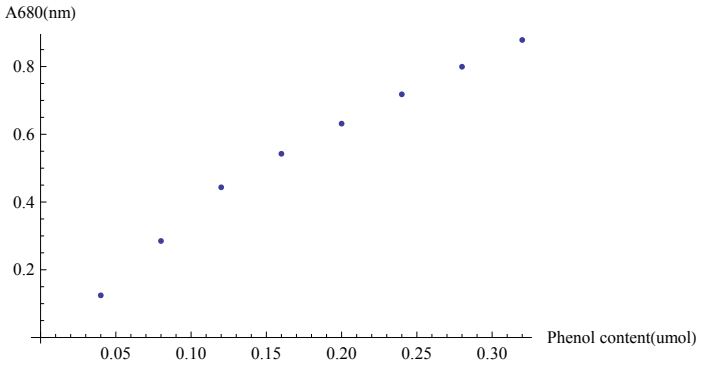
```
Import["C:\\Users\\Juntao Yu\\Desktop\\Enzyme Activity\\F Standard.xlsx"]
```

```
{{{0.04, 0.1245}, {0.08, 0.285}, {0.12, 0.4435}, {0.16, 0.5425},
  {0.2, 0.6315}, {0.24, 0.718}, {0.28, 0.7995}, {0.32, 0.8785}}}
```

```
da = {{0.04`, 0.1245`}, {0.08`, 0.28500000000000003`},
   {0.12`, 0.4435`}, {0.16`, 0.5425`}, {0.2`, 0.6315`}, {0.24`, 0.718`},
   {0.28`, 0.7995000000000001`}, {0.32`, 0.8785000000000001`}}
```

```
{{0.04, 0.1245}, {0.08, 0.285}, {0.12, 0.4435}, {0.16, 0.5425},
 {0.2, 0.6315}, {0.24, 0.718}, {0.28, 0.7995}, {0.32, 0.8785}}
```

```
graph = ListPlot[da, AxesLabel → {"Phenol content(umol)", "A680(nm)"}]
```

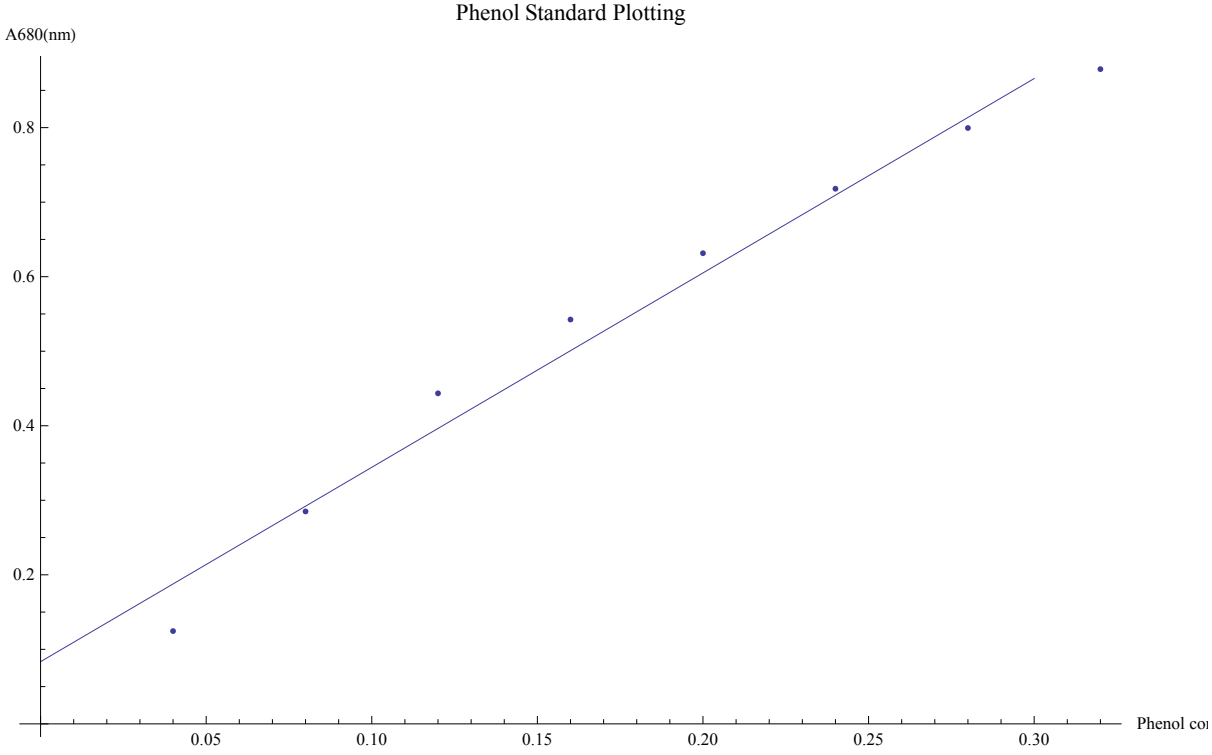



```
graph2 = LinearModelFit[da, x, x]
```

```
Normal[graph2]
```

```
0.0834286 + 2.60804 x
```

```
Show[graph, Plot[graph2[x], {x, 0, 0.3}], PlotLabel → "Phenol Standard Plotting"]
```



```
graph2["RSquared"]
```

```
0.977435
```

```
Solve[y == 0.08342857142857123` + 2.6080357142857156` x, x]
```

```
{{x → -0.38343 (0.0834286 - y)}}
```

```
a[b_] = -0.38343033207805527` (0.08342857142857123` - b)
```

```
-0.38343 (0.0834286 - b)
```

```
a[.184]
```

```
0.0385621
```

```
a[.214]
```

```
0.050065
```

```
a[.265]
```

```
0.06962
```

```
a[.3135]
```

```
0.0882164
```

```
a[.387]
```

```
0.116398
```

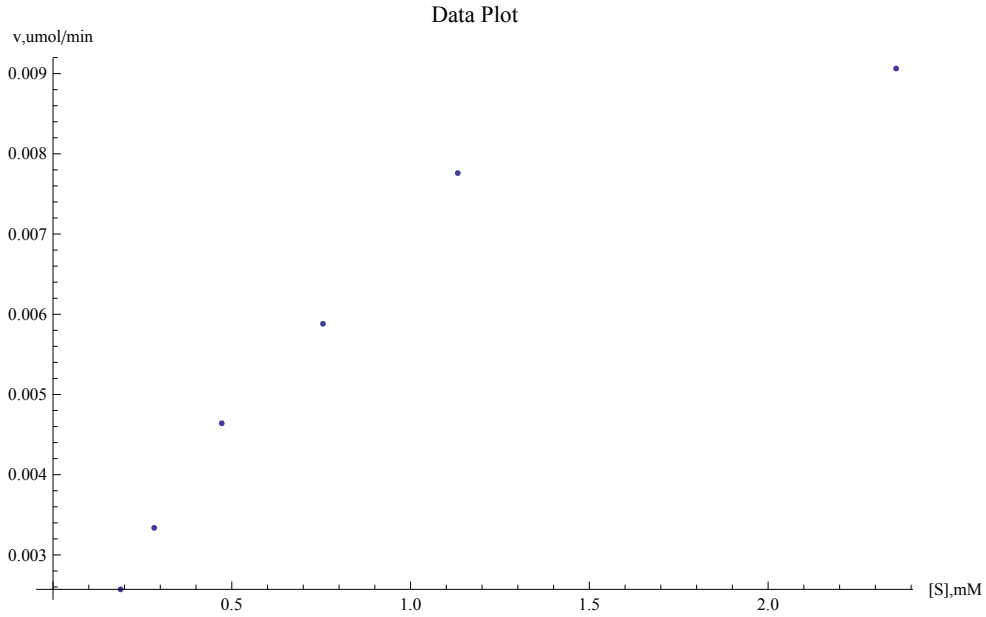
```
a[.438]
```

```
0.135953
```

```
Import["C:\\Users\\Juntao Yu\\Desktop\\Enzyme Activity\\v-s.xlsx"]
```

```
data2 = {{0.189`, 0.002570806666666667`}, {0.283`, 0.0033376666666666667`},
   {0.472`, 0.004641333333333333`}, {0.755`, 0.005881093333333334`},
   {1.132`, 0.007759866666666667`}, {2.358`, 0.009063533333333334`}};
```

```
cs =
 ListPlot[data2, AxesLabel → {"[S],mM", "v,umol/min"}, PlotLabel → "Data Plot"]
```

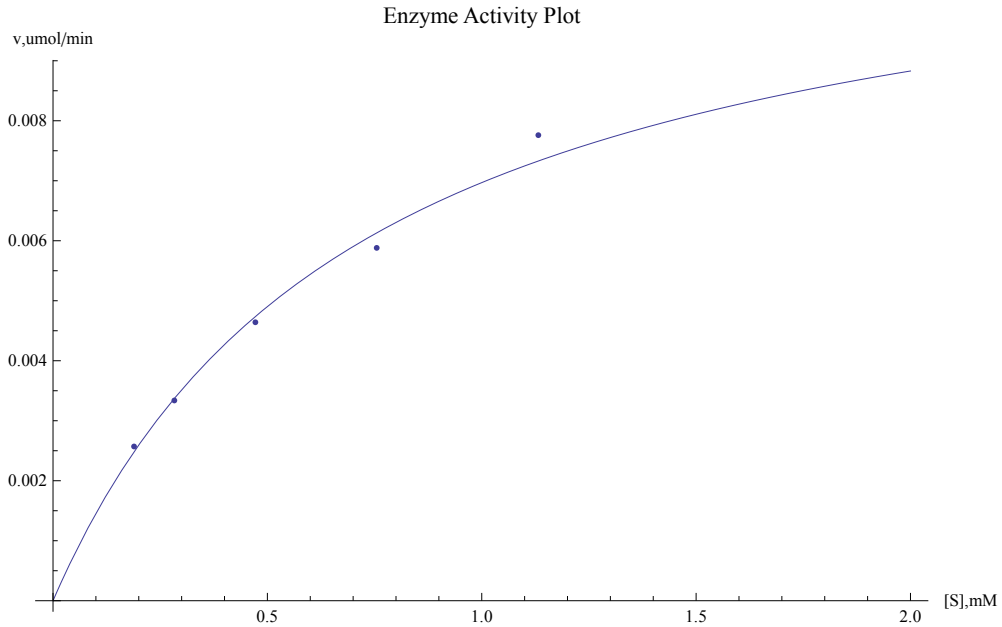



```
nlm = NonlinearModelFit[data2, a * x / (x + b), {a, b}, x]
```

```
Normal[nlm]
```

$$\frac{0.0120434\,x}{0.728042 + x}$$

```
Show[Plot[nlm[x], {x, 0, 2}], cs,
 AxesLabel → {"[S],mM", "v,umol/min"}, PlotLabel → "Enzyme Activity Plot"]
```



```
nlm[{"ParameterTable"}]
```

```
Import["C:\\Users\\Juntao Yu\\Desktop\\Enzyme Activity\\-s-v.xlsx"]
```

```
data3 = {{5.291005291005291`, 388.9829651393466`}, {3.53356890459364`,
    299.6105063417557`}, {2.1186440677966103`, 215.45532892846884`},
   {1.3245033112582782`, 170.03641046336054`}, {0.88339222614841`,
    128.86819361157407`}, {0.4240882103477523`, 110.3322471736556`}};
```

```
lm = LinearModelFit[data3, x, x]
```

```
Normal[lm]
```

```
87.1835 + 58.208 x
```

```
lm["ParameterTable"]
```

```
Show[Plot[lm[x], {x, 0, 5.5}], cs1 = ListPlot[data3],
 AxesLabel → {"1/[S],1/mM", "1/v,min/umol"},
 PlotLabel → "Enzyme Activity Plot 1/V-1/[S]"]
```