

Read data

```
In[1]:= a = Import["~/t191229a.csv", "CSV"];
```

```
In[2]:= Dimensions[a]
```

```
Out[2]:= {9881, 11}
```

```
In[3]:= b = Transpose[a];
```

```
In[4]:= Dimensions[b]
```

```
Out[4]:= {11, 9881}
```

```
In[5]:= time = b[[1]];
```

$x1 = Tc1, x2 = Tc2, x3 = Tc4, x4 = Tc5, x5 = Tc3 - 1, x6 = Tc3 - 2, x7 = Tc3 - 3$

```
In[6]:= x1 = b[[2]]; x2 = b[[3]];
```

```
In[7]:= x3 = b[[4]]; x4 = b[[5]];
```

```
In[8]:= x5 = b[[6]]; x6 = b[[7]]; x7 = b[[8]];
```

Time Convolution

620 - 810

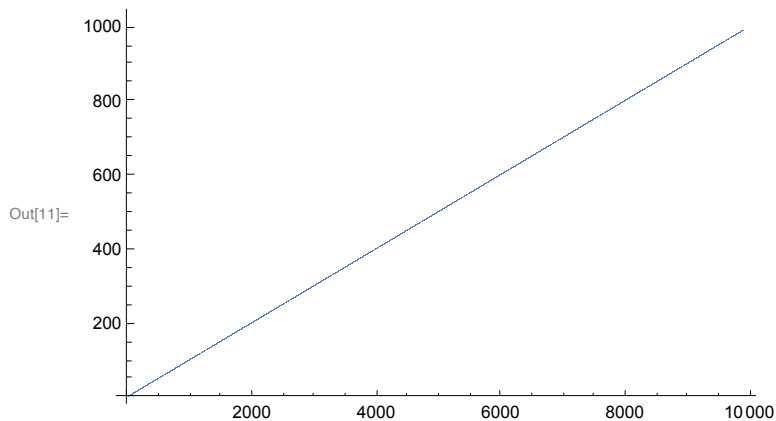
```
In[9]:= time[[2]]
```

```
Out[9]:= 5.7
```

```
In[10]:= time[[8000]]
```

```
Out[10]:= 805.5
```

```
In[11]:= ListPlot[time]
```



```
In[12]:= y1 = {}; y2 = {};
```

```
In[26]:= t1 = {};
```

```
In[13]:= x1[[1]]
```

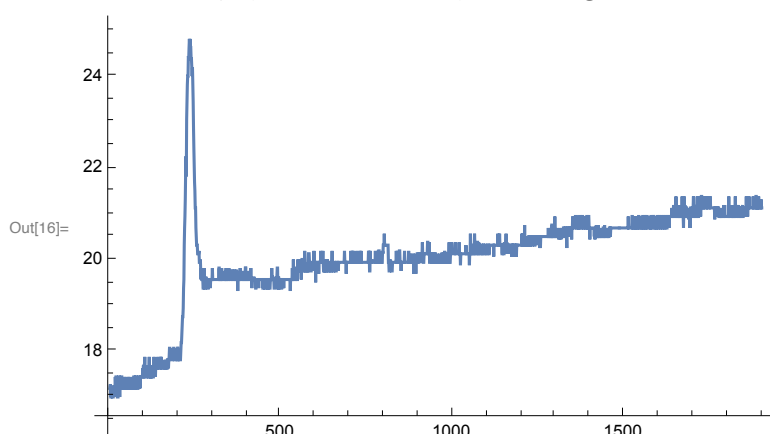
```
Out[13]= 19.1875
```

```
In[14]:= Do[If[time[[i1]] > 619.9 && time[[i1]] < 810.1, AppendTo[y1, x1[[i1]]],  
           {i1, Length[time]}]
```

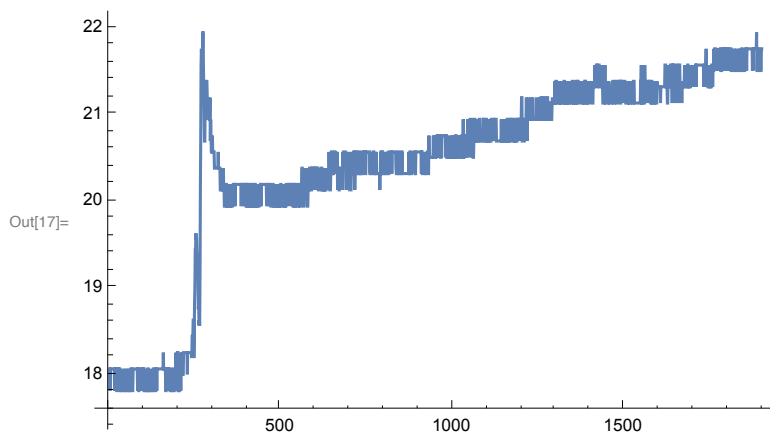
```
In[15]:= Do[If[time[[i1]] > 619.9 && time[[i1]] < 810.1, AppendTo[y2, x2[[i1]]],  
           {i1, Length[time]}]
```

```
In[27]:= Do[If[time[[i1]] > 619.9 && time[[i1]] < 810.1, AppendTo[t1, time[[i1]]],  
           {i1, Length[time]}]
```

```
In[16]:= ListPlot[y1, Joined → True, PlotRange → All]
```

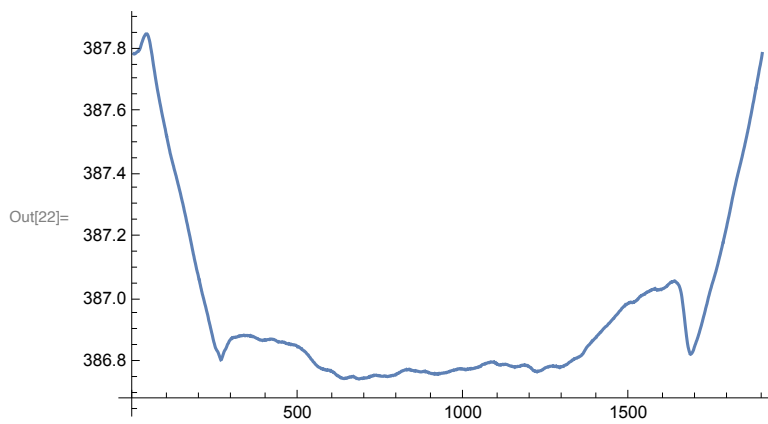


```
In[17]:= ListPlot[y2, Joined → True, PlotRange → All]
```



```
In[20]:= z = (0.1 / 201.) Table[y1.RotateLeft[y2, k], {k, 1, Length[y1]}];
```

```
In[22]:= ListPlot[z, Joined -> True, PlotRange -> All]
```



Delay Time

```
In[28]:= zm = Max[Table[z[[i]], {i, 1, 200}]]
```

```
Out[28]= 387.848
```

```
In[31]:= x = {}
```

```
Out[31]= {}
```

```
In[32]:= Do[If[z[[i]] == zm, AppendTo[x, i]], {i, Length[z]}]
```

```
In[34]:= x[[1]]
```

```
Out[34]= 41
```

```
In[40]:= tl = t1[[x[[1]]]]
```

```
Out[40]= 624.
```

```
In[39]:= ts = t1[[1]]
```

```
Out[39]= 620.
```

delay time

```
In[41]:= tl - ts
```

```
Out[41]= 4.
```