In [1]:
```
import pandas as pd
```

In [2]:
```
import matplotlib.pyplot as plt
```

In [28]:
```
import numpy as np
```

In [30]:
```
import seaborn as sns
```

In [4]:
```
data=pd.read_csv("C:\DAC\DAC_PHASE1\DAC_Dataset.csv")
```

In [5]:
```
x=(data['Stn Code'])
```

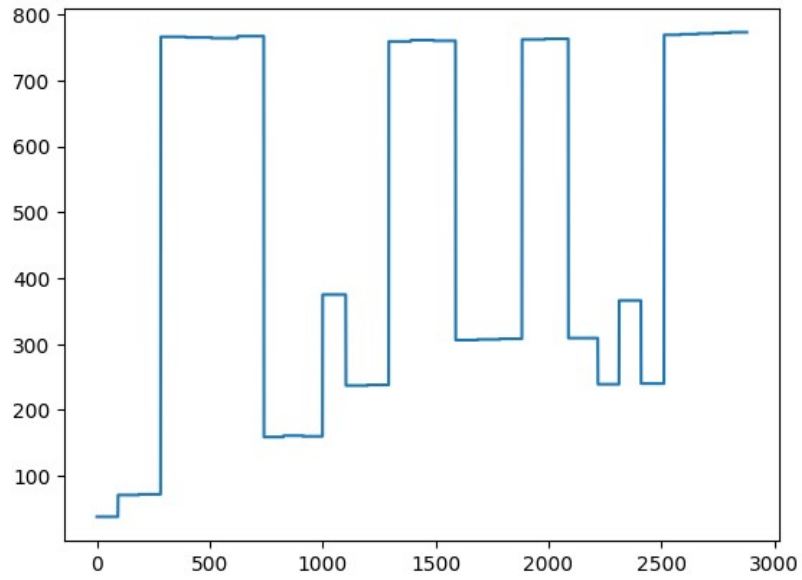
In [6]:
```
y=(data['NO2'])
```

In [7]:
```
plt.plot(x)
```

Out[7]:
```
[<matplotlib.lines.Line2D at 0x26f39807970>]
```

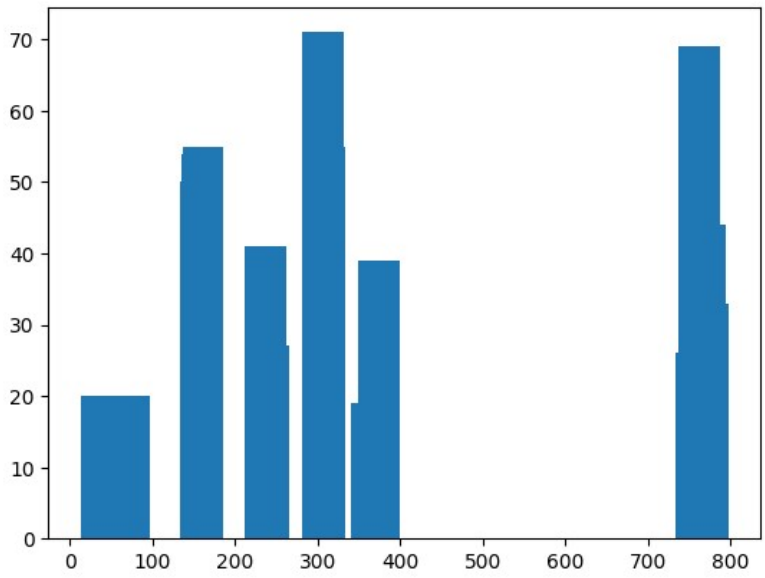
In [7]:
```
plt.plot(x)
```

Out[7]:
```
[<matplotlib.lines.Line2D at 0x26f39807970>]
```



In [19]:
```
plt.bar(x,y,width=50)
```

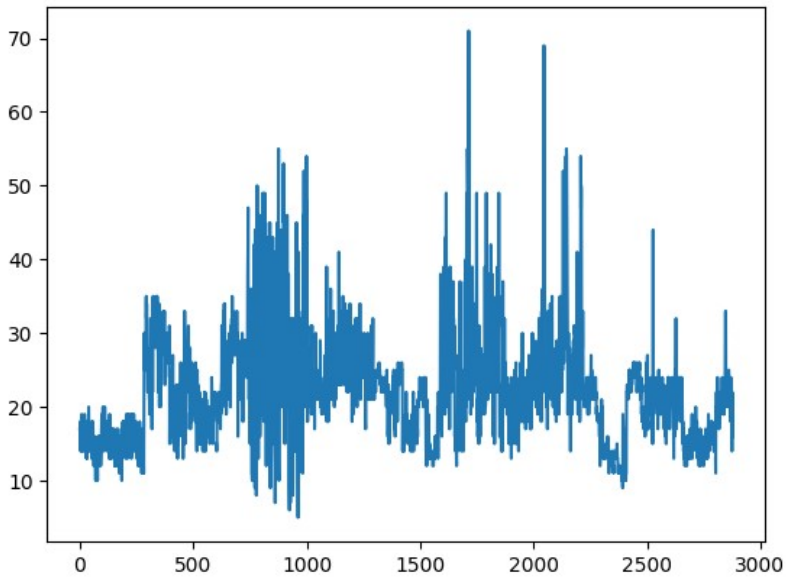
Out[19]: <BarContainer object of 2879 artists>



In [22]:
```
xpos=np.arange(len(x))
```

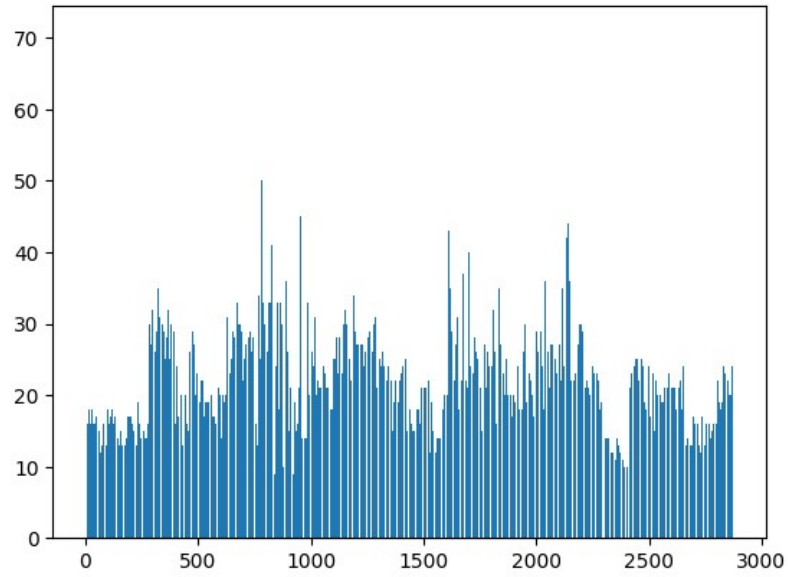
In [24]:
```
plt.plot(xpos,y)
```

Out[24]:
```
[<matplotlib.lines.Line2D at 0x26f4b435ca0>]
```



In [27]:
```
plt.bar(xpos,y)
```

Out[27]:
```
<BarContainer object of 2879 artists>
```



In [33]:
```
heat=data[['Stn Code','NO2','SO2']]
```

In [34]:
```
heat.head()
```

Out[34]:

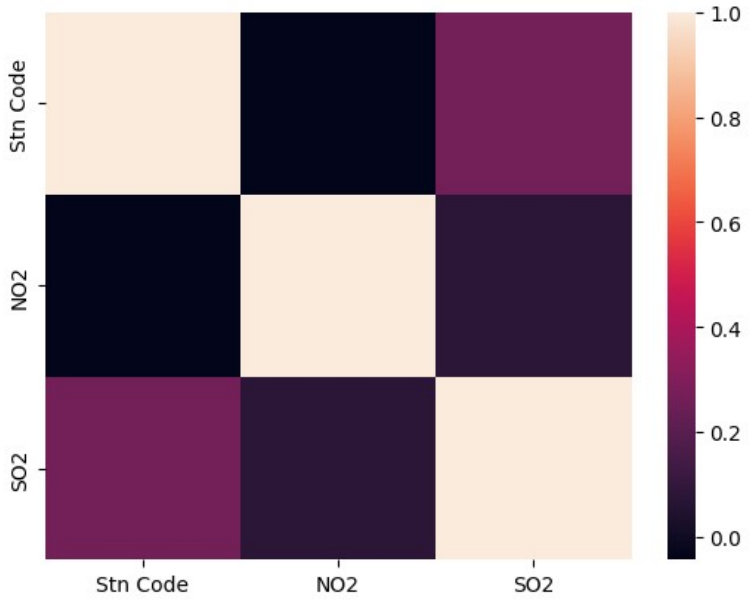
	Stn Code	NO2	SO2
0	38	17.0	11.0
1	38	17.0	13.0
2	38	18.0	12.0
3	38	16.0	15.0
4	38	14.0	13.0

In [41]:
```
df_corr=heat.corr()
```

In [43]:
```
figure=plt.figure(figsize=(20,15))
```

```
<Figure size 2000x1500 with 0 Axes>
```

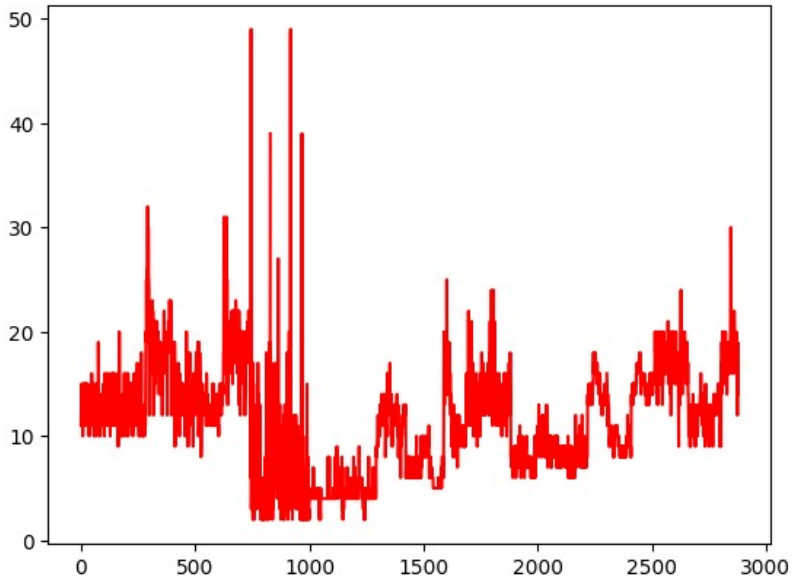
In [44]:
```
sns.heatmap(df_corr,annot=True,fmt='fig')
plt.show()
```



In [45]:
```
sulphur=(data['SO2'])
```

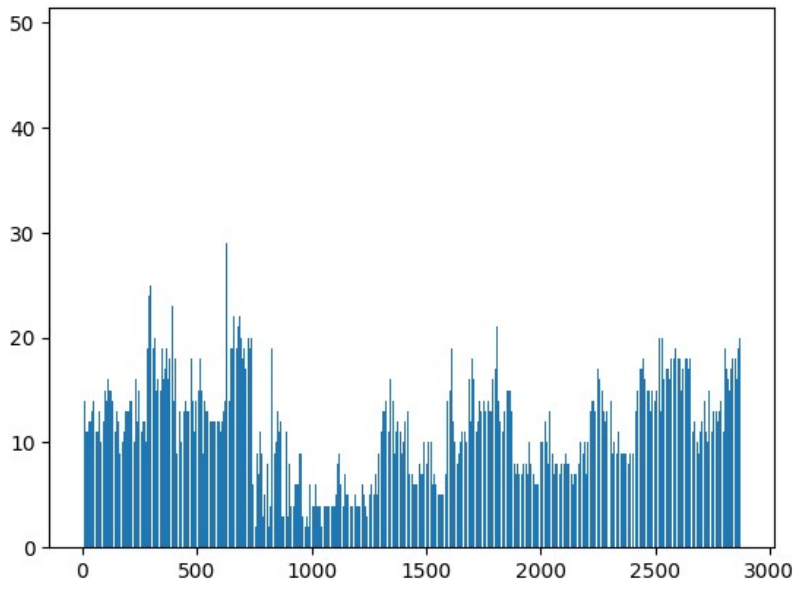
In [46]:
```
plt.plot(xpos,sulphur,'r')
```

Out[46]:
```
[<matplotlib.lines.Line2D at 0x26f5d3a2820>]
```



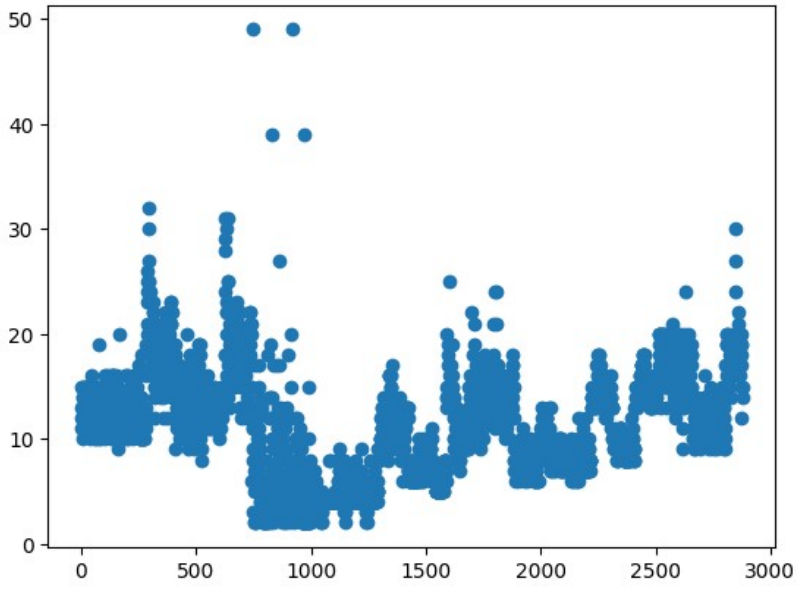
In [47]:
```
plt.bar(xpos,sulphur)
```

Out[47]:
```
<BarContainer object of 2879 artists>
```



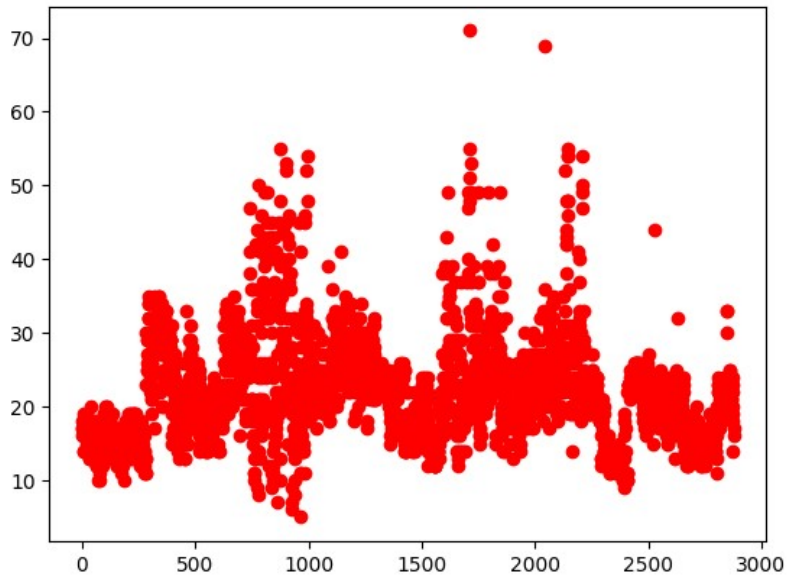
In [54]:
```
plt.scatter(xpos,sulphur)
```

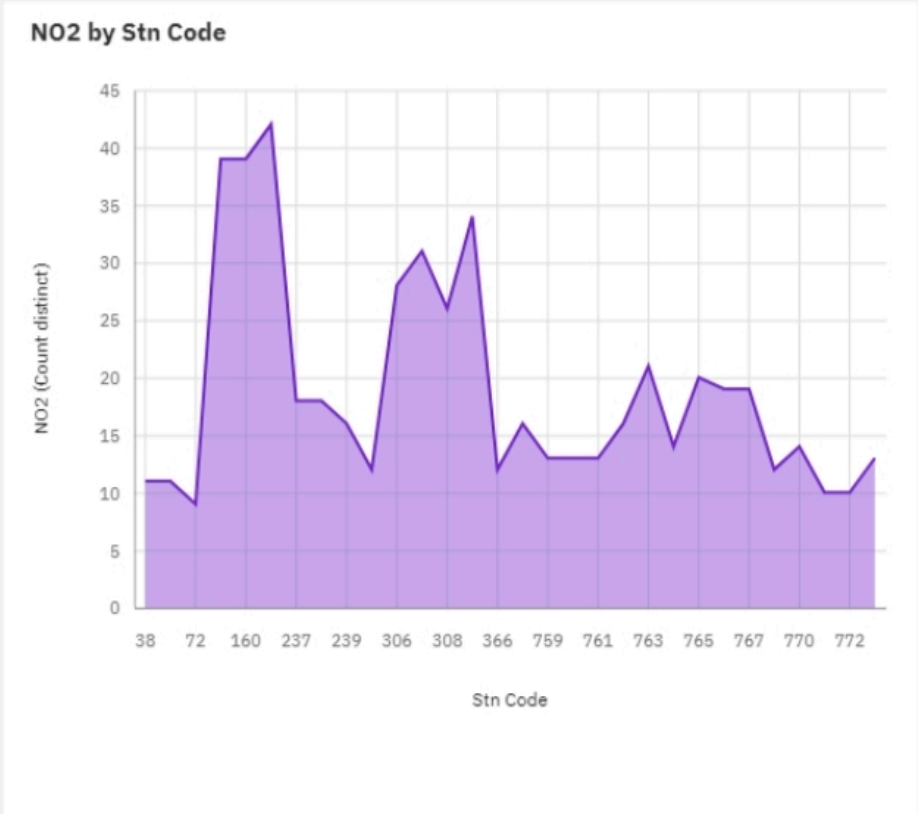
Out[54]:
```
<matplotlib.collections.PathCollection at 0x26f5c35ff40>
```



In [57]:
```
plt.scatter(xpos,nitrogen,c='r')
```

Out[57]:
```
<matplotlib.collections.PathCollection at 0x26f60f5a580>
```





Details

The total number of results for **NO2**, across all **stn codes**, is nearly three thousand.

309 is the most frequently occurring category of **Stn Code** with a count of 131 items with **NO2** values (4.6 % of the total).

Chart A

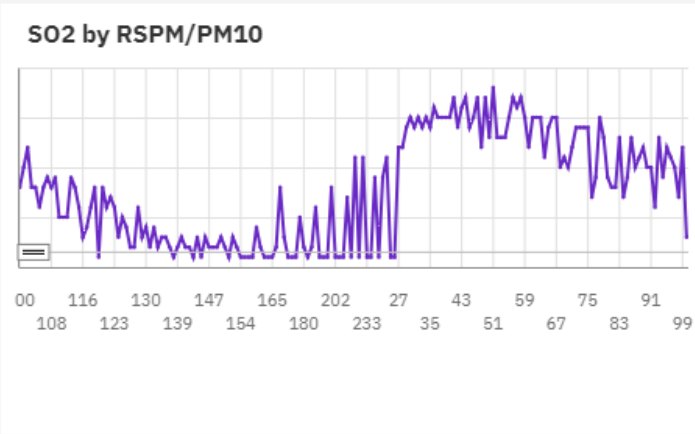
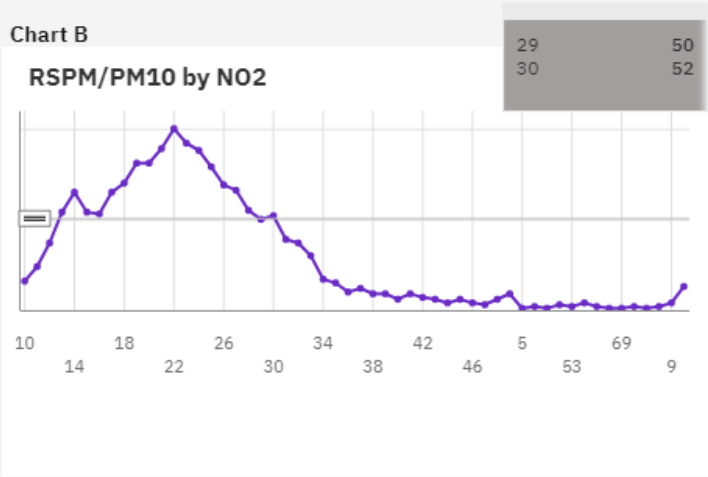
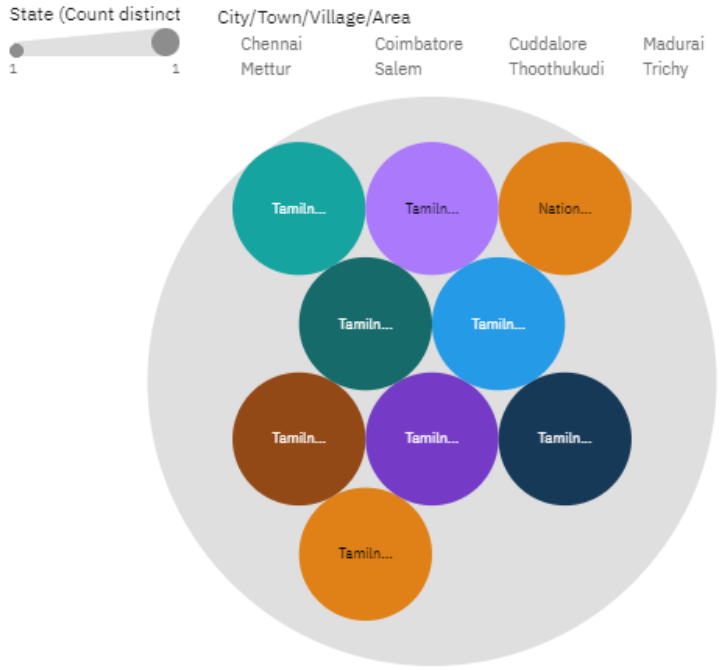


Chart B



Summary	Chart A : SO2	Chart B : RSPM/PM10	Combined
Minimum	1	1	-
Maximum	18	100	-
Chart percent of data set	100%	100%	-
Chart total	34	170	-
Difference of chart totals			-

Agency hierarchy colored by City/Town/Village/Area and sized by State



Details

The overall number of results for **State** is nearly three thousand.

Tamilnadu State Pollution Control Board is the most frequently occurring category of **Agency** with a count of 2619 items with **State** values (91 % of the total).

Chennai is the most frequently occurring category of **City/Town/Village/Area** with a count of 1000 items with **State** values (34.7 % of the total).

State by Stn Code

Stn Code

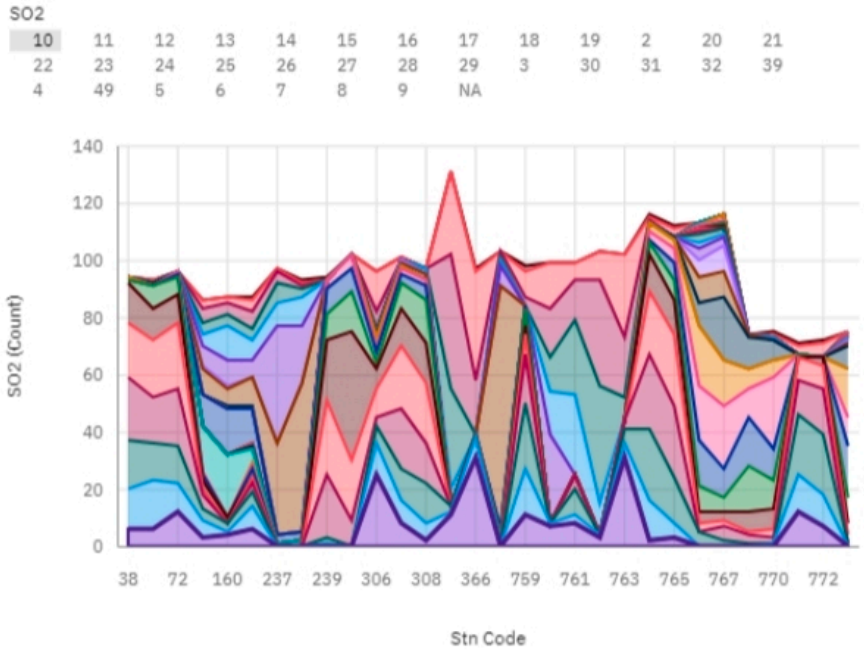
767	161	237	159	375	773	239	761	308	366	240	770
38	760	763	769	160	759	72	309	307	771	306	772
762	766	765	71	764	238						

Details

The total number of results for **State**, across all **stn codes**, is nearly three thousand.

309 is the most frequently occurring category of **Stn Code** with a count of 131 items with **State** values (4.6 % of the total).

SO2 by Stn Code colored by SO2



Details

The total number of results for **SO2**, across all **stn codes**, is nearly three thousand.

309 is the most frequently occurring category of **Stn Code** with a count of 131 items with **SO2** values (4.6 % of the total).

13 (8.6 %), 14 (8.6 %), and 12 (7.6 %) are the most frequently occurring categories of **SO2** with a combined count of 717 items with **SO2** values (24.9 % of the total).

State and City/Town/Village/Area hierarchy colored by SO2

SO2

10 11 12 13 14 15 16 17 18 19 2 20 21 22 23 24 25 26 27 28 29 3 30
31 32 39 4 49 5 6 7 8 9 NA