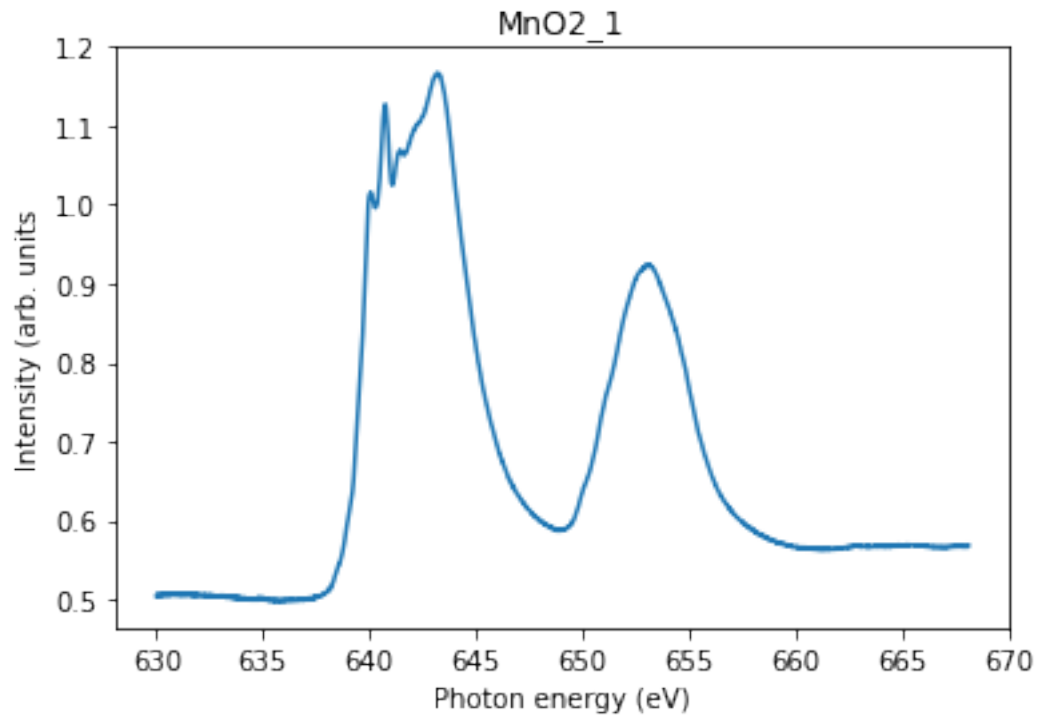# 210315_xas-exp_dataset

March 15, 2021

```python
[13]: import os
      import csv
      import pandas as pd
      import numpy as np
      import matplotlib.pyplot as plt
```
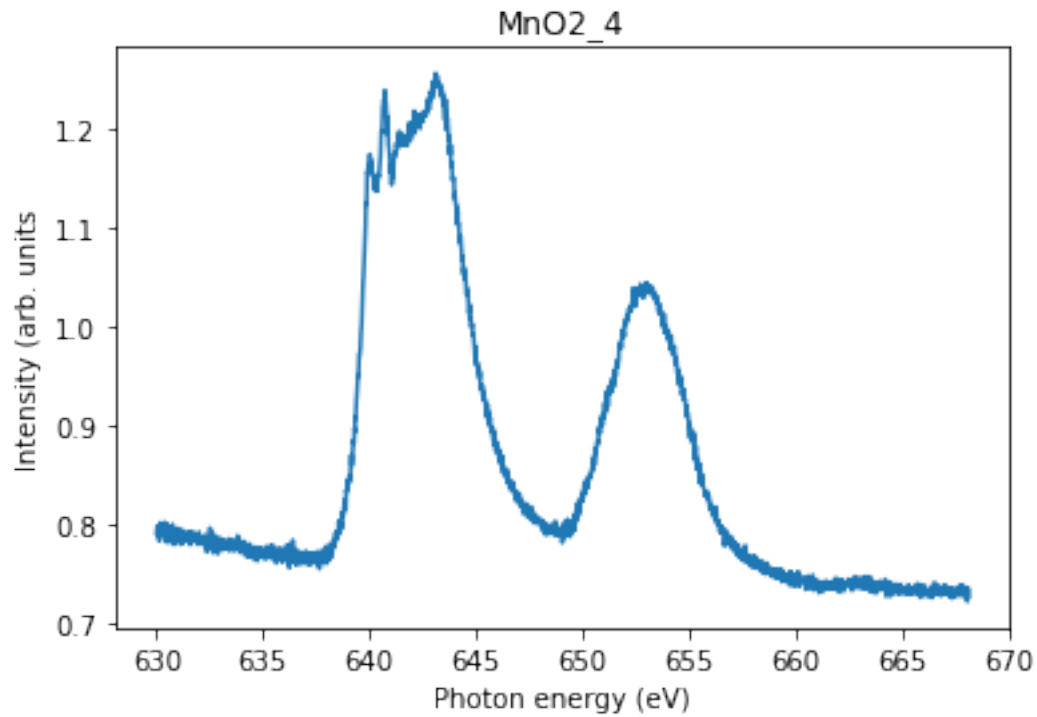
```python
[4]: os.getcwd()
```

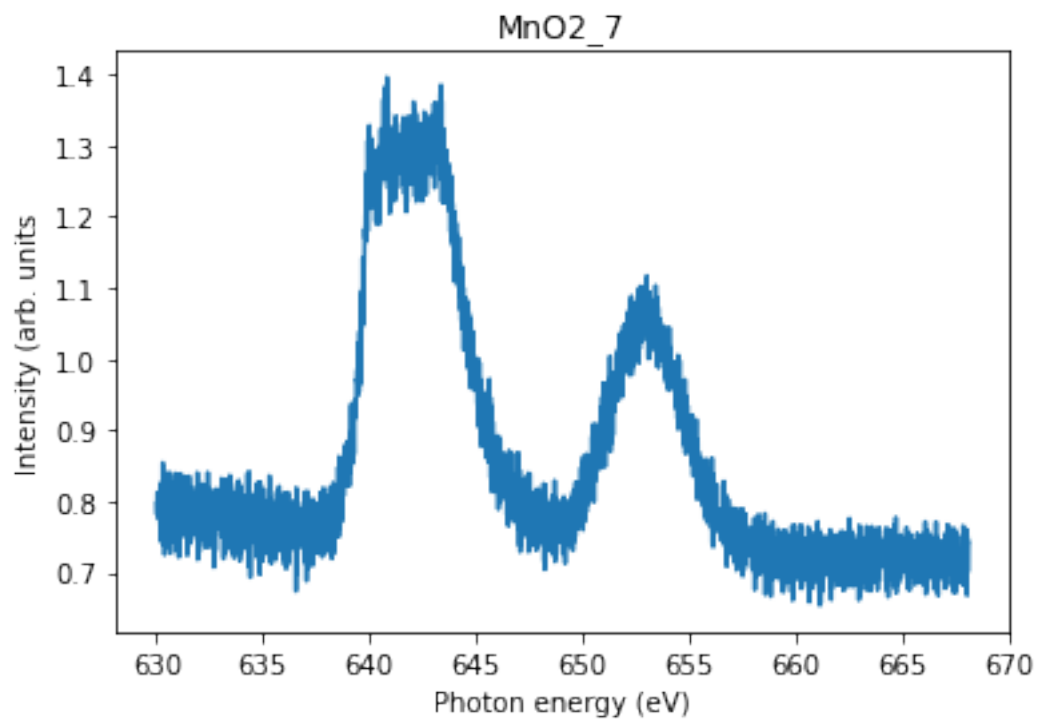```
[4]: '/Users/tetsuro/Desktop/20210314_Ueno'
```

```python
[72]: data = pd.read_csv("MnO2_1", header=7,␣
      ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("MnO2_1")
      plt.show()
```

MnO2_1

```
[73]: data = pd.read_csv("MnO2_4", header=7,␣
       ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("MnO2_4")
      plt.show()
```
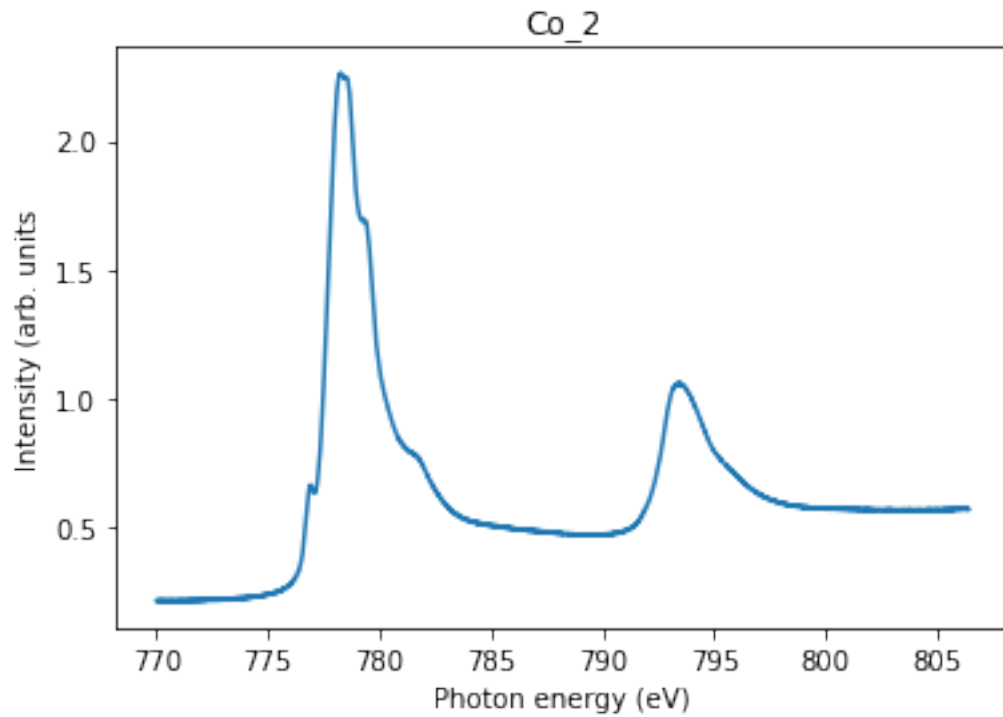
MnO2_4

```
[74]: data = pd.read_csv("MnO2_7", header=7,
      →names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("MnO2_7")
      plt.show()
```
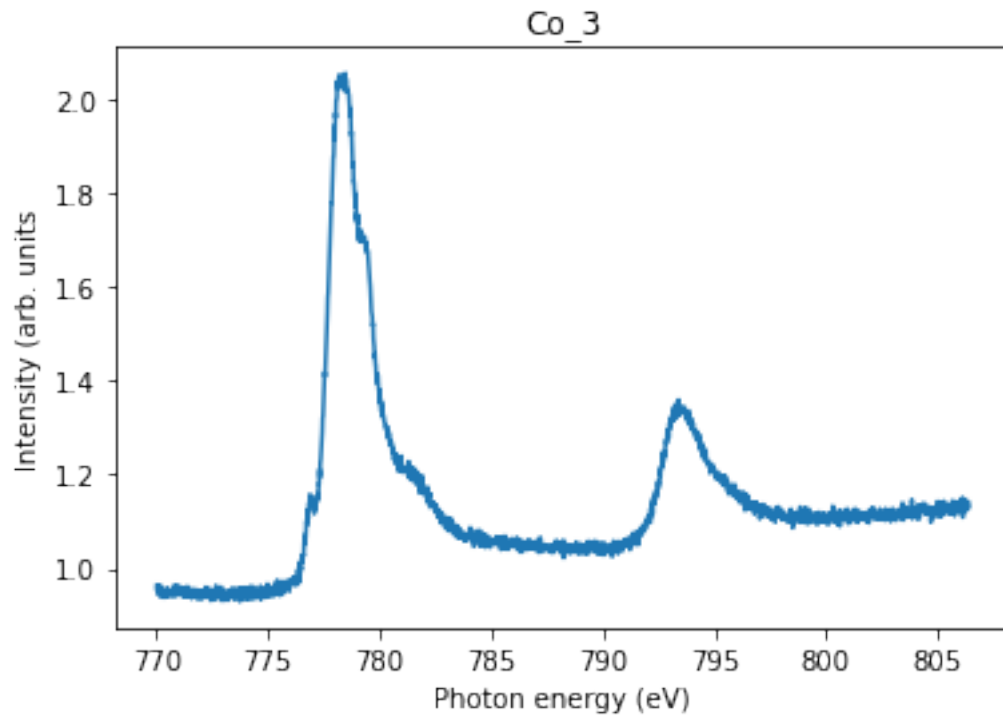
MnO2_7

```
[77]: data = pd.read_csv("Co_2", header=7,␣
      ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("Co_2")
      plt.show()
```
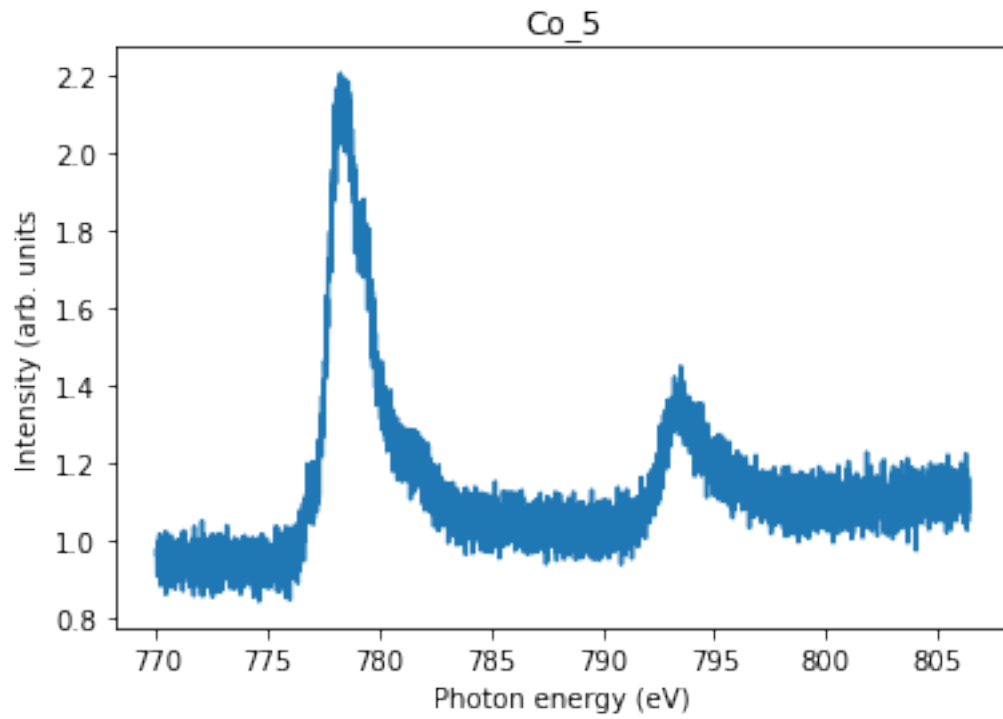
Co_2

```
[78]: data = pd.read_csv("Co_3", header=7,
       →names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units)")
      plt.title("Co_3")
      plt.show()
```
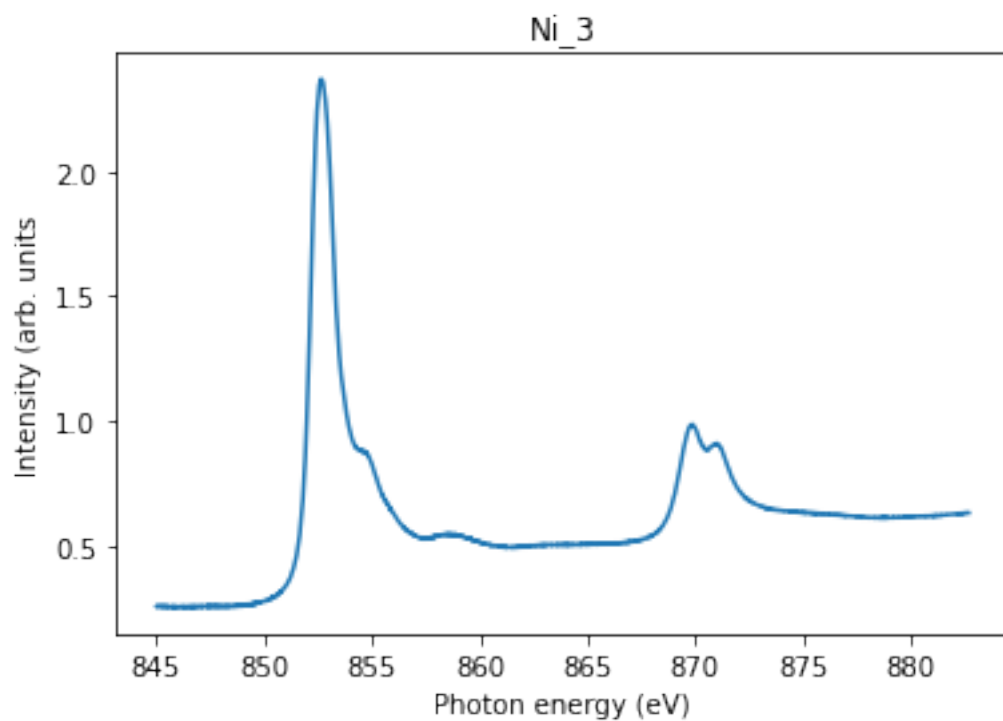
Co_3

```
[79]: data = pd.read_csv("Co_5", header=7,␣
      ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("Co_5")
      plt.show()
```
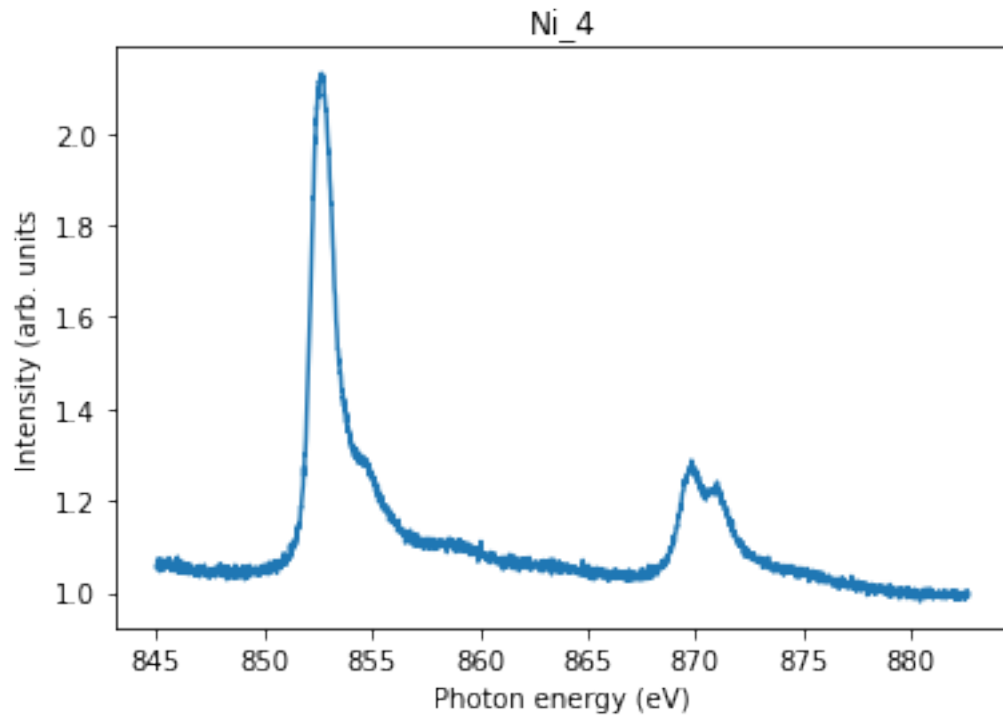
Co_5

```
[80]: data = pd.read_csv("Ni_3", header=7,␣
       ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("Ni_3")
      plt.show()
```
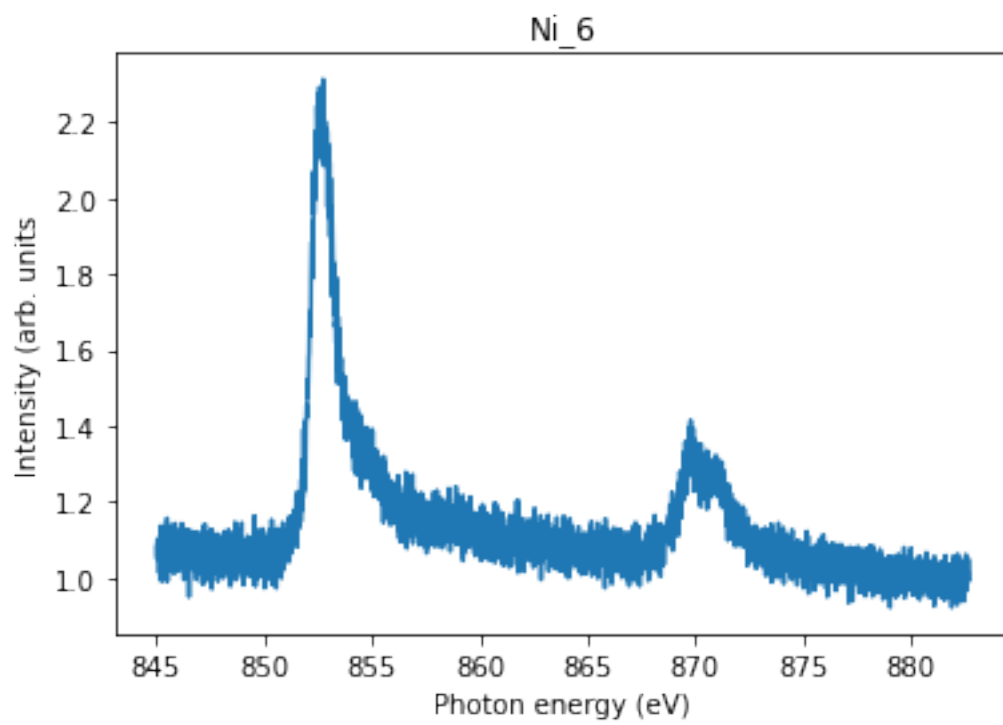
```
[81]: data = pd.read_csv("Ni_4", header=7,␣
      ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units)")
      plt.title("Ni_4")
      plt.show()
```

```
[82]: data = pd.read_csv("Ni_6", header=7,␣
      ↪names=["Target","Energy","Time","Ch0","Ch1","Ch2","Ch3","Ch4","Ch5","Ch6","Ch7","Ch4_corr",]
      plt.plot(data.Energy,data.Ch3/data.Ch2)
      plt.xlabel("Photon energy (eV)")
      plt.ylabel("Intensity (arb. units")
      plt.title("Ni_6")
      plt.show()
```

Ni_6

[ ]: