

**Gas Phase Complexes of  $\text{H}_3\text{N}\cdots\text{CuF}$  and  $\text{H}_3\text{N}\cdots\text{CuI}$  Studied by Rotational Spectroscopy and Ab Initio Calculations: The Effect of X (X = F, Cl, Br, I) in  $\text{OC}\cdots\text{CuX}$  and  $\text{H}_3\text{N}\cdots\text{CuX}$**

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**Supplementary Information: High Resolution Fourier Transform Window Function**

The program code used to apply the high resolution Fourier transform window function is shown below (as Python script).

```
def f1(x):  
    return (1/(numpy.exp(1/x)-1))  
  
def f2(x):  
    return (1/x**4.5)  
  
def f(x):  
    return f1(x)*f2(x)  
  
def high_res_window(Npoints):  
    x = numpy.arange(0,1,1./Npoints)  
    y = f(x)  
    y[0] = 0  
    maximum = max(y)  
    y = y/maximum  
    plateau_start = numpy.argmax(y == maximum)  
    y[plateau_start:Npoints] = max(y)  
    return y
```