## **AusteniteCalculator**

Release 0.1

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**Note:** Hi everybody

```
def find_sin_thetas(phase_lattice_parameter, hkl_list, wavelength):
#Description
Calculate the position in two theta for a list of hkls. Used to mark locations for
!!! Have only tested cubic crystal symmetry
#Input
phase_lattice_parameter: lattice parameter
hkl_list: list of lattice planes (hkl)
wavelength: dominant wavelength in the diffraction data
#Returns
List of floating point values with the position of each hkl in 2-theta
#? Is this in radians or degrees?
#? Returning theta or two_theta?
D=[phase_lattice_parameter/ math.sqrt(hkl[0]*hkl[0]+hkl[1]*hkl[1]+hkl[2]*hkl[2]) for_
→hkl in hkl_list]
SinTheta=[1*wavelength/(2*d) for d in D]
return SinTheta
```

CONTENTS: 1

2 CONTENTS:

	CHAPTER
	ONE
	COMPUTE_RESULTS
<b>Note:</b> This is the main file for the backend of the app	

Note: REFORMAT DOCSTRINGS TO GOOGLE STYLE

# CHAPTER TWO

#### **BUILD APP**

CHAPTER
THREE

### **WELCOME TO THE USER GUIDE**

#### **CHAPTER**

### **FOUR**

### **INDICES AND TABLES**

- genindex
- modindex
- search