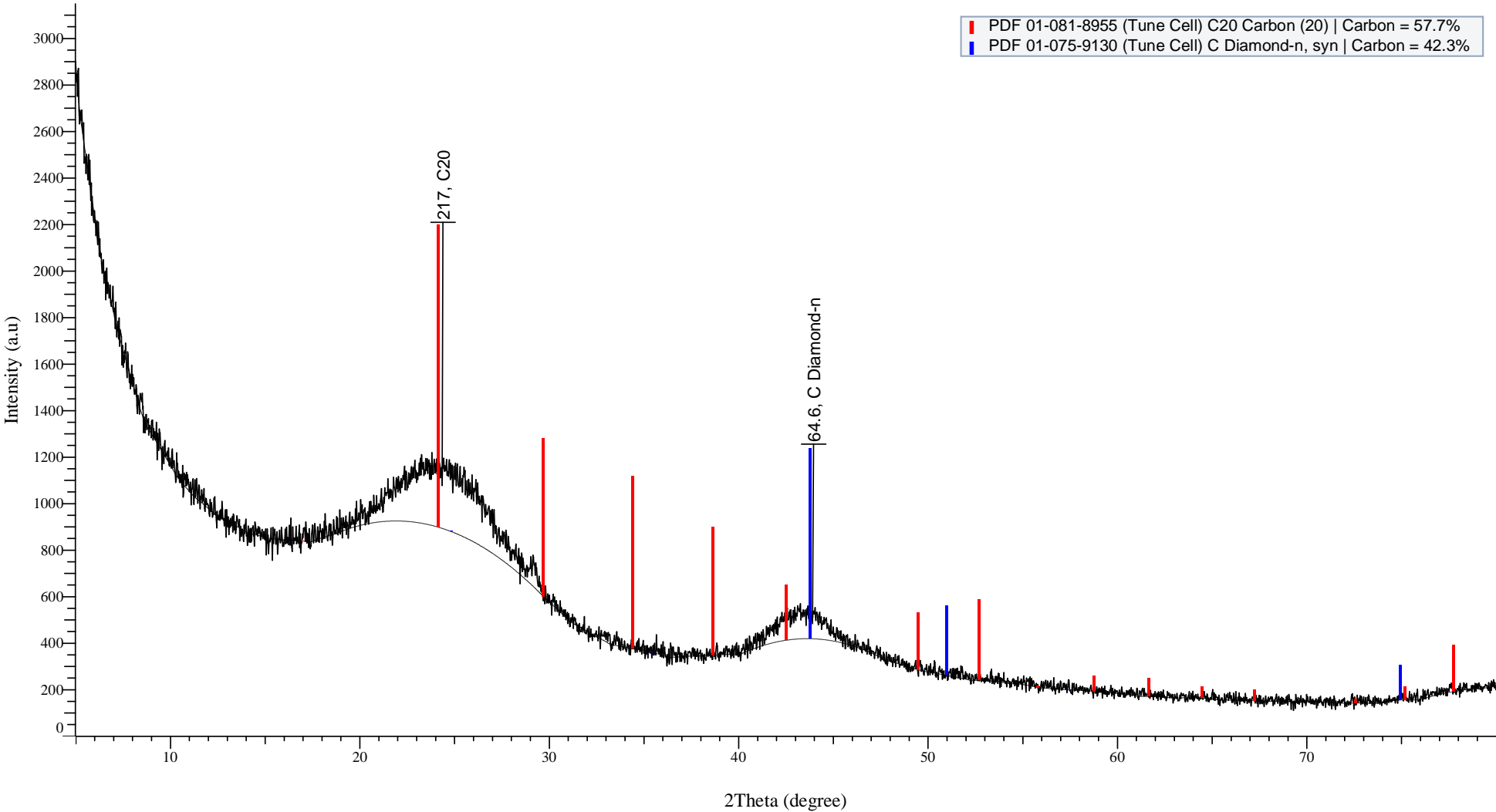




Raw Commercial Activated Carbon (coconut)



Raw CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	Raw CAC.raw
Parent	2Theta
Sample Name	Raw CAC
Scan's Sample Name	
File Name	Raw CAC.raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	15.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

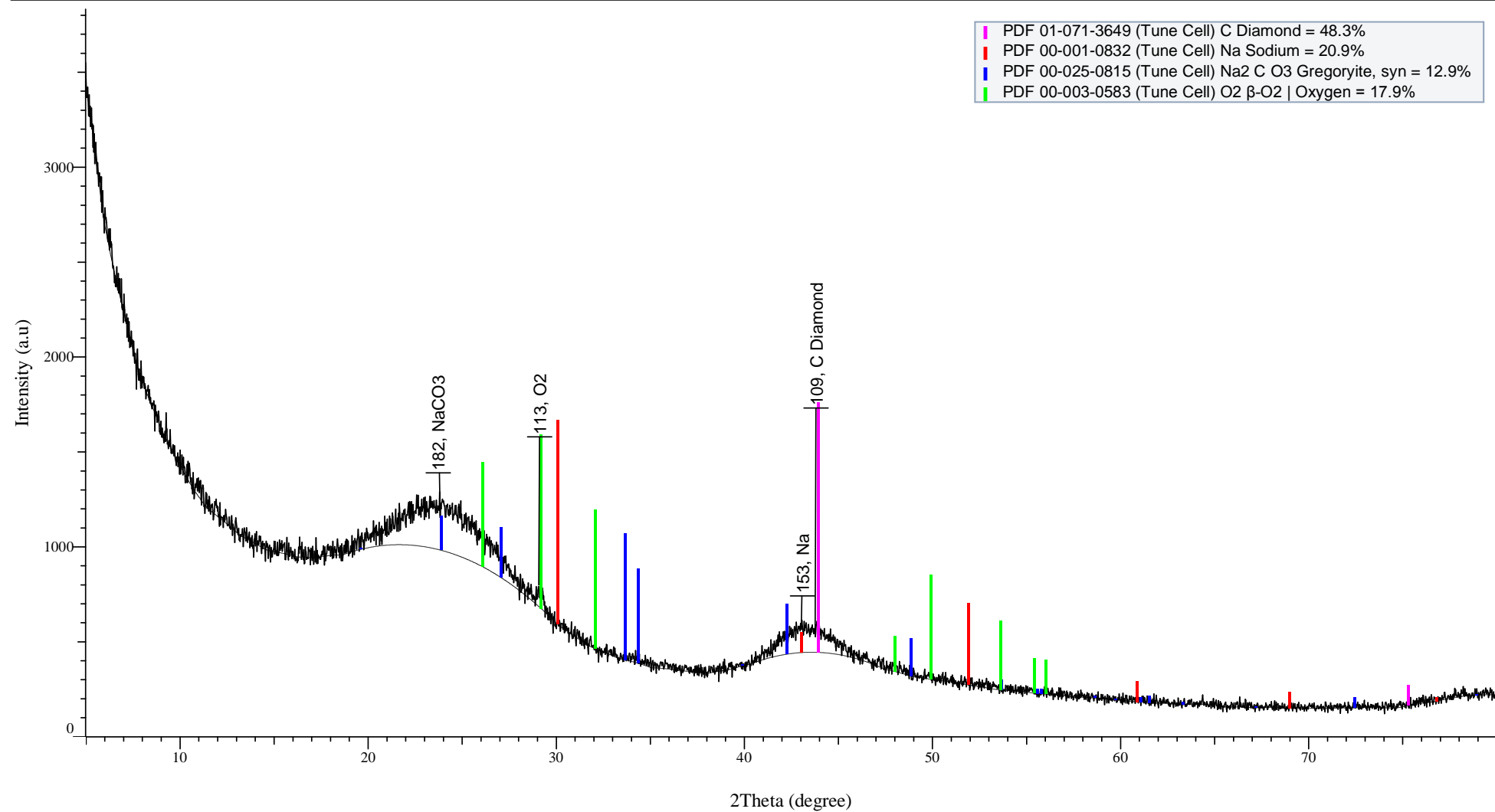
Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	37.8%
%-Amorphous	62.2%
Global Area	324.4
Reduced Area	122.8
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 3:40:41 PM
Last Write Date/Time	4/1/2017 3:40:41 PM
Measurement Duration	00:00:00
Set index	Not used



Raw CAtC Compute Crystallinity

Index	1
Sample Name	Raw CAC
%-Crystallinity	37.8%
%-Amorphous	62.2%
Global Area	324.4
Reduced Area	122.8

Modified Na₂CO₃ - CAC



Na₂CO₃-CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	CAC-Na ₂ CO ₃ .raw
Parent	2Theta
Sample Name	CAC-Na ₂ CO ₃
Scan's Sample Name	
File Name	CAC-Na ₂ CO ₃ .raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	17.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

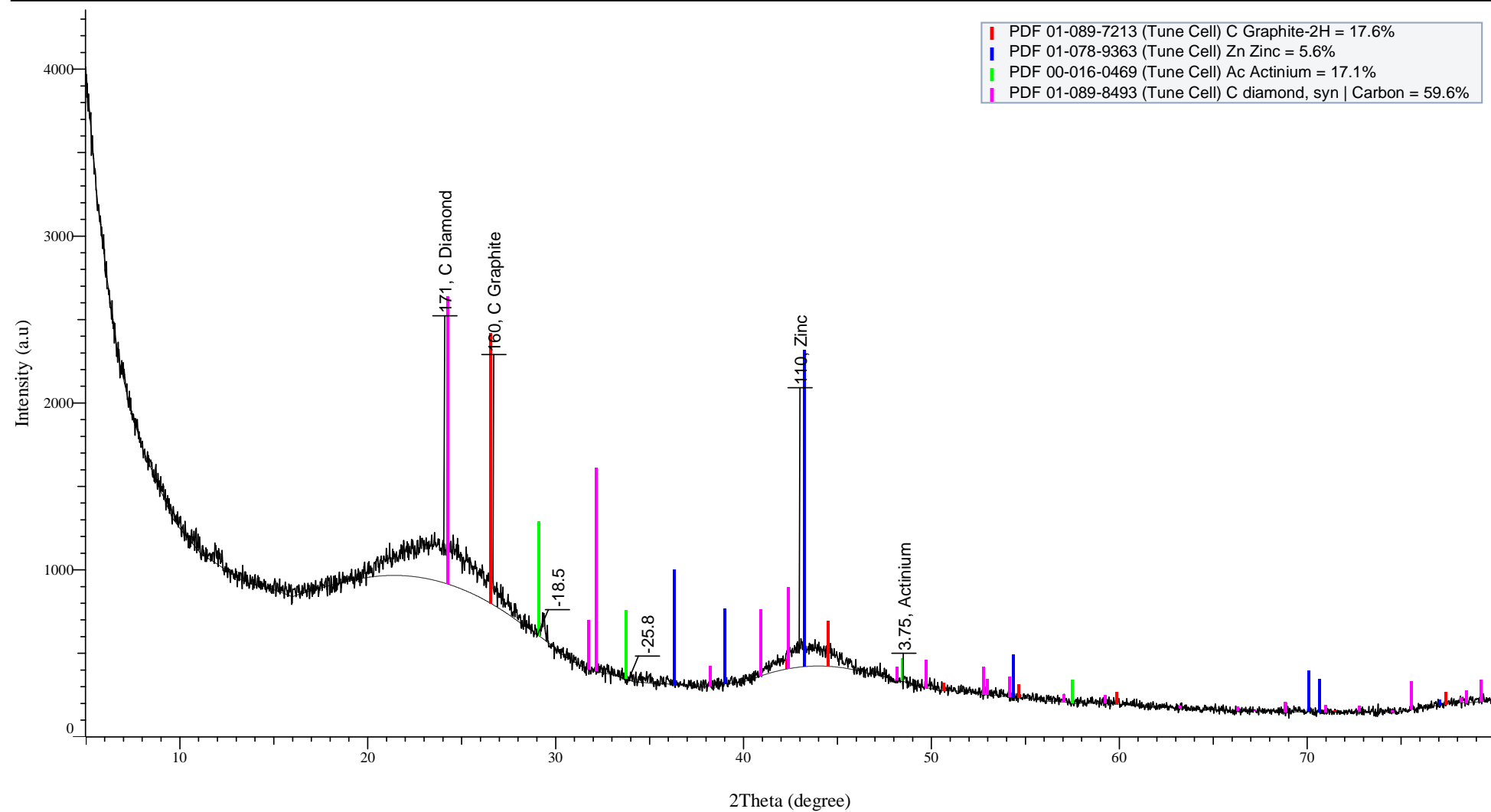
Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	37.0%
%-Amorphous	63.0%
Global Area	331.5
Reduced Area	122.8
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 3:35:01 PM
Last Write Date/Time	4/1/2017 3:35:01 PM
Measurement Duration	00:00:00
Set index	Not used



Na₂CO₃- CAC Compute Crystallinity

Index	1
Sample Name	CAC-Na ₂ CO ₃
%-Crystallinity	37.0%
%-Amorphous	63.0%
Global Area	331.5
Reduced Area	122.8

Modified ZnAc2 - CAC



ZnAc2 - CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	CAC- ZnAC2.raw
Parent	2Theta
Sample Name	CAC- ZnAC2
Scan's Sample Name	
File Name	CAC- ZnAC2.raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	15.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

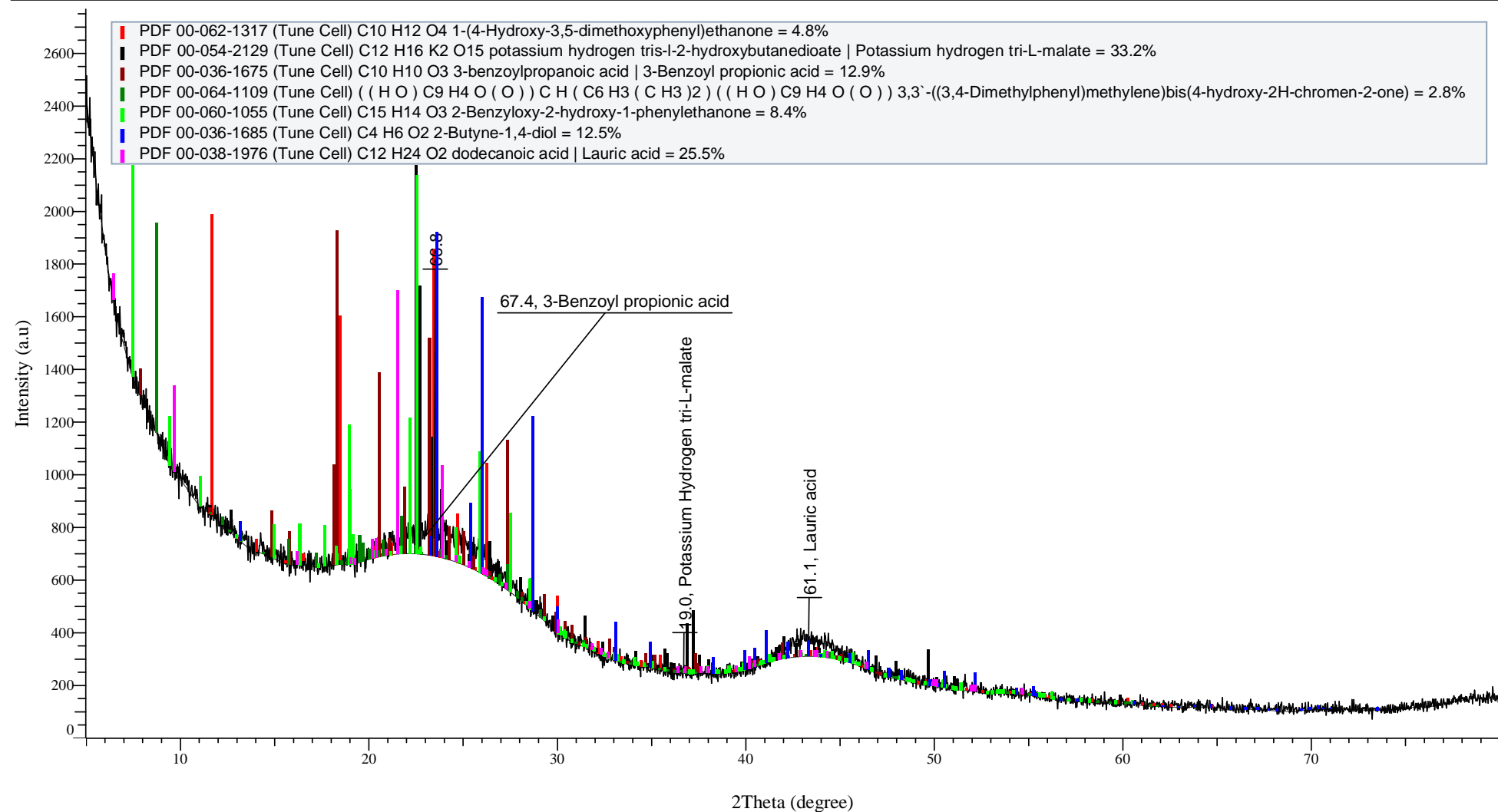
Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	31.7%
%-Amorphous	68.3%
Global Area	343.0
Reduced Area	108.6
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 3:52:01 PM
Last Write Date/Time	4/1/2017 3:52:01 PM
Measurement Duration	00:00:00
Set index	Not used



ZnAc2 - CAC Compute Crystallinity

Index	1
Sample Name	CAC- ZnAC2
%-Crystallinity	31.7%
%-Amorphous	68.3%
Global Area	343.0
Reduced Area	108.6

Modified KOH - CAC



KOH - CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	CAC- KOH.raw
Parent	2Theta
Sample Name	CAC- KOH
Scan's Sample Name	
File Name	CAC- KOH.raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	15.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

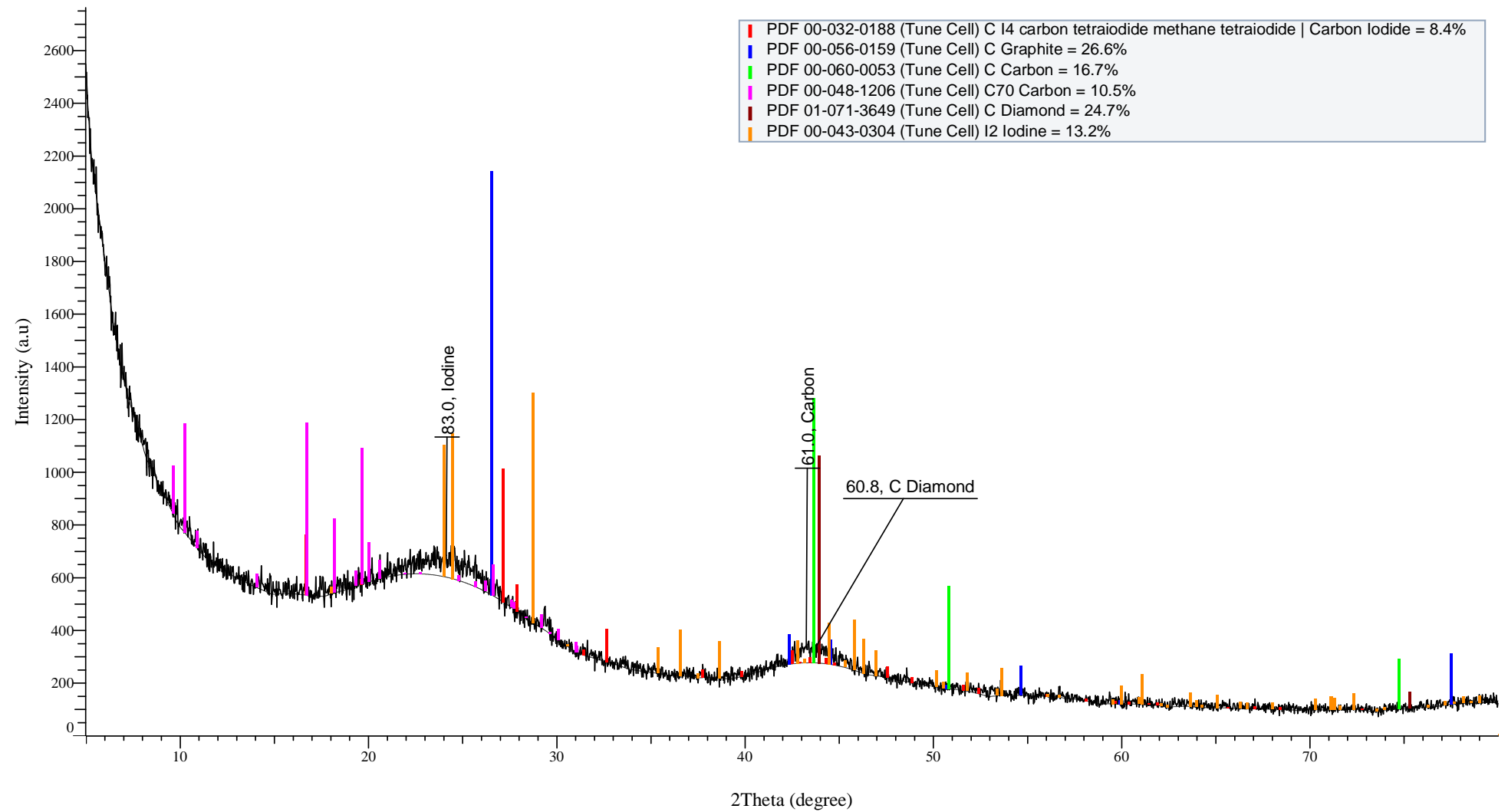
Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	31.3%
%-Amorphous	68.7%
Global Area	194.2
Reduced Area	60.82
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 4:03:20 PM
Last Write Date/Time	4/1/2017 4:03:20 PM
Measurement Duration	00:00:00
Set index	Not used



KOH - CAC Compute Crystallinity

Index	1
Sample Name	CAC- KOH
%-Crystallinity	31.3%
%-Amorphous	68.7%
Global Area	194.2
Reduced Area	60.82

Modified KI - CAC



KI - CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	CAC- KI.raw
Parent	2Theta
Sample Name	CAC- KI
Scan's Sample Name	
File Name	CAC- KI.raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	14.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

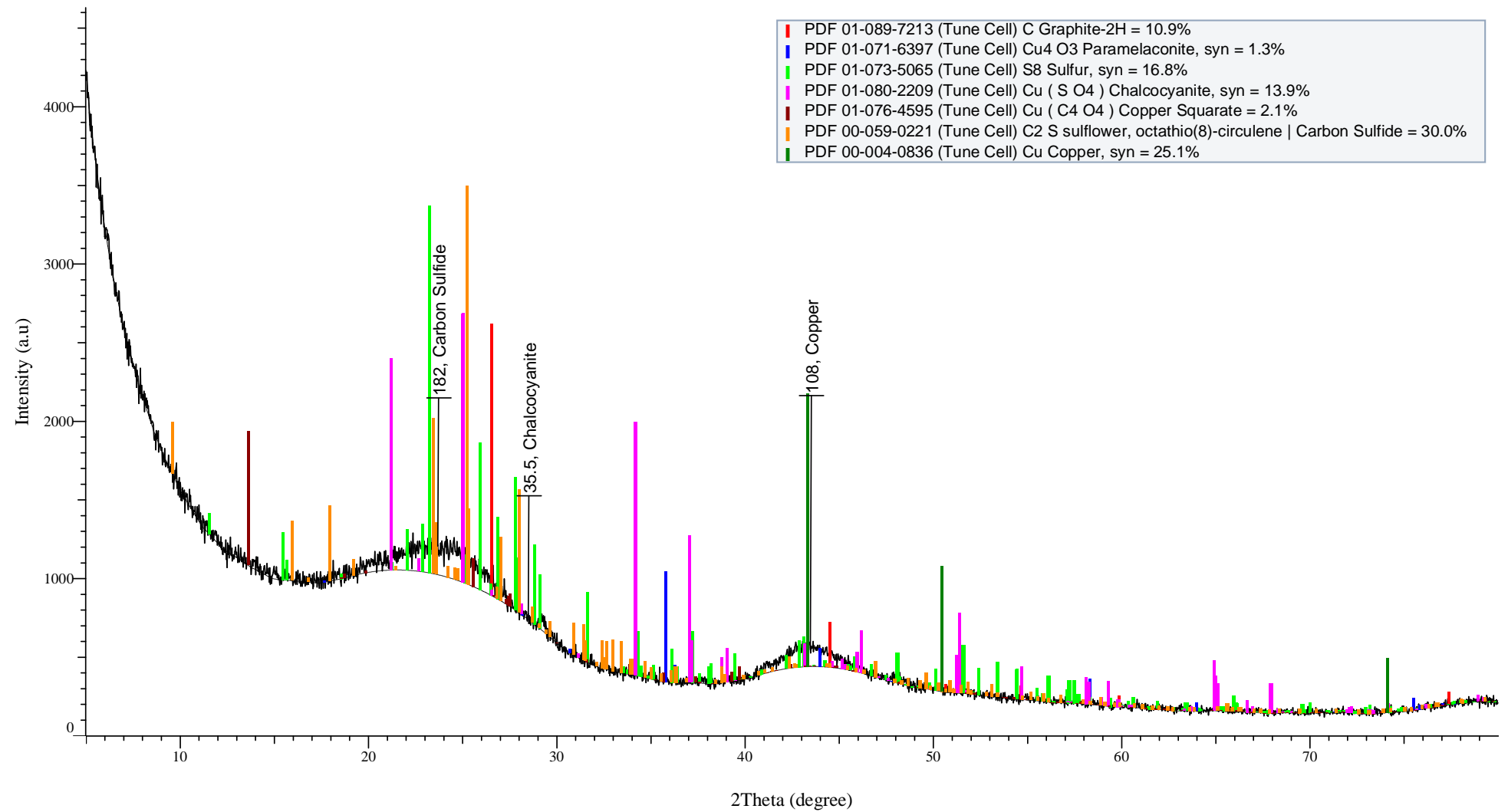
Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	26.4%
%-Amorphous	73.6%
Global Area	187.5
Reduced Area	49.59
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 3:57:40 PM
Last Write Date/Time	4/1/2017 3:57:40 PM
Measurement Duration	00:00:00
Set index	Not used



KI - CAC Compute Crystallinity

Index	1
Sample Name	CAC- KI
%-Crystallinity	26.4%
%-Amorphous	73.6%
Global Area	187.5
Reduced Area	49.59

Modified CuSO4 - CAC



CuSO4- CAC Overall Data

Visible	Yes
Icon	
Color	
Index	1
Name	CAC- CuSO4.raw
Parent	2Theta
Sample Name	CAC- CuSO4
Scan's Sample Name	
File Name	CAC- CuSO4.raw
Experiment File Name	
Database ID	
Scan Type	Coupled TwoTheta/Theta
Scan Mode	Continuousscan
Scan Status	Completed
Start	5.000
End	79.986
Step Size	0.025
Time per Step	19.00
Axis Offset	
Temperature	25 °C (Room)
Temp. Diff.	
Heating Rate	
Time Started	15.0
Goniometer Radius	217.5
Goniometer Radius Primary	
Goniometer Radius Secondary	
2-theta	5.000
2-theta Osc. Amplitude	0.000
2-theta Osc. Speed	0.000
Theta	2.500
Theta Osc. Amplitude	0.000
Theta Osc. Speed	0.000
Detector	
Detector Osc. Amplitude	
Detector Osc. Speed	
Chi	0.00
Chi Osc. Amplitude	0.00
Chi Osc. Speed	0.00
Phi	0.00
Phi Osc. Amplitude	0.00

Phi Osc. Speed	0.00
Gamma	0.00
X-Drive	0.0
X-drive Osc. Amplitude	0.0
X-drive Osc. Speed	0.0
Y-Drive	0.0
Y-drive Osc. Amplitude	0.0
Y-drive Osc. Speed	0.0
Z-Drive	0.0
Z-drive Osc. Amplitude	0.0
Z-drive Osc. Speed	0.0
Aux1	0.0
Aux2	0.0
Aux3	0.0
Anode	Cu
$k\alpha 1$	1.54060
$k\alpha 2$	1.54439
$k\alpha 2$ Ratio	0.50000
$k\beta$	1.39222
Generator kV	40.0
Generator mA	40.0
Detector Name	Braun
Calcium Channel	
Calcium Channel Time	
LynxEye 0D	No
PSD Opening	
PSD Opening Initial	
2Theta For Final PSD Opening	
Detector Slit Opening	12.930
Lower Discriminator	
Upper Discriminator	
Discriminator Width	
Detector Counts 0D	
Primary Soller slit	4.000
Secondary Soller slit	4.000
Center Soller slit	
Sample rotation speed	
Divergence Slit	0.298
Antiscatter Slit	0.298
Slit Mode	Fixed
Simul. Slit Mode	
Center Slit	

X-Offset	0.000
Displacement	0.000
Y-Scale Factor	1
Y-Offset	0
Humidity	n.a.
Curvature	1.000
Threshold	1.000
Enhanced	No
BackgroundFit	No
BackgroundOrder	0.000
BackgroundHyperbola	No
Compute Crystallinity	Yes
Cristallinity - From	5.000
Cristallinity - To	79.986
%-Crystallinity	31.6%
%-Amorphous	68.4%
Global Area	329.1
Reduced Area	104.0
Transmission without Blank	
Transmission	
Company Name	Malaysia
Operator Name	Administrator
User Comment	
Sample Position	
Creation Date/Time	4/1/2017 3:46:21 PM
Last Write Date/Time	4/1/2017 3:46:21 PM
Measurement Duration	00:00:00
Set index	Not used

CuSO4 - CAC Compute Crystallinity

Index	1
Sample Name	CAC- CuSO4
%-Crystallinity	31.6%
%-Amorphous	68.4%
Global Area	329.1
Reduced Area	104.0