

Finding Crystal Orientation in Uniplanar Textures

Pentacinequinone (P2O) on HOPG

QXY =

[0.452,0.455,0.774,0.781,0.885,0.888,0.909,0.909,0.912,0.914,1.175,1.179,1.216,1.217,1.553,1.546,1.364,1.634,1.605,1.775,1.776,1.608,1.638,1.367,1.598,1.558,1.823,1.956,2.010,2.108,1.819,2.002,2.033,1.954,2.435,2.332,2.352,2.393,2.361,2.434,2.380,2.536,2.536,2.714,2.380,2.280,2.434,2.364,2.477,2.396,2.338,2.442,2.666,2.662,2.910,2.745,2.815,2.734,2.736,2.750,2.915,3.018,3.097,3.213,3.133,3.134,3.194,3.323,3.102,3.194,3.194,3.362,3.449,3.443];

QZ =

[1.398,0.546,1.996,0.056,1.342,0.600,0.852,1.089,1.451,0.490,1.143,0.798,1.034,0.908,2.054,1.686,1.632,1.506,1.287,1.197,0.744,0.652,0.436,0.309,0.362,0.110,0.236,0.292,0.182,0.420,1.705,1.761,1.743,1.648,1.817,1.775,1.596,1.560,1.234,1.215,1.106,1.016,0.930,1.050,0.838,0.782,0.725,0.708,0.689,0.381,0.164,0.128,0.147,1.797,1.543,1.469,1.378,1.327,0.618,0.476,0.398,0.069,1.436,1.312,1.182,0.764,0.725,0.622,0.506,0.073,0.127,0.089,0.528,1.416];

HKL =

1	0	1	0	1	0	1	0	1	0	0	1	0	1	1	0	0	1	1	0	1	0
0	0	1	1	-1	1	0	0	1	-1	1	-1	-1	1	2	1	0	2	-2	2	-2	2
1	1	2	0	1	1	0	2	1	1	2	0	2	0	2	3	3	1	1	2	0	1
0	1	1	0	-1	-1	-1	1	2	2	0	2	2	1	2	1	1	2	2	1	0	2
-2	0	1	2	0	1	-1	2	0	1	2	-1	2	-3	-2	3	-3	1	-1	3	-3	-2
1	-1	-1	0	2	2	2	-1	0	0	3	0	0	2	0	1	1	-1	-1	0	2	-1
-1	-1	-1	0	1	0	0	-1	1	0	2	0	-1	-1	2	1	-1	-1	-1	0	1	0
1	0	-1	3	-3	-3	3	-2	-3	3	-3	-3	1	0	0	3	3	-3	2	4	-4	4
3	3	3	1	0	1	0	2	-1	3	0	3	4	4	-2	-1	2	2	4	2	1	1
2	-1	2	2	2	1	1	0														
2	-3	-2	0	0	-4	4	-4														
-2	3	-2	-3	-3	-1	-1	3														

Diindenoperylene (DIP) on HOPG

QXY = [0.368,0.396,0.428,0.689,0.734,0.806,1.140,1.223,1.529,1.625];

QZ = [0.091,1.160,1.069,0.984,0.182,1.232,0.171,0.083,0.790,0.697];

HKL =

0	1	1	1	0	0	-1	-1	-1	-1
0	-1	-1	-1	0	-2	-1	-1	-2	-2
1	1	0	-1	2	0	0	-1	0	-1

Binaphthaline on silicon

QXY = [0.4262,0.7867,0.9850,0.4336,1.0993,1.1743,1.2103,0.3919];

QZ = [0.8896,0.5950,0.0516,1.0214,0.1701,0.5984,0.7272,1.6340];

HKL = 0 1 1 0 0 -1 -1 1

 1 0 0 1 1 1 1 1

 2 2 -2 3 -3 2 3 5