

Table B.10. The two-dimensional square space group $p4$ or #10 ($p4$)

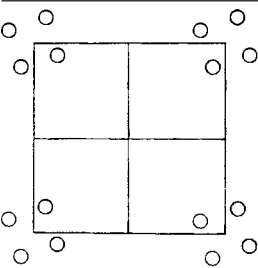
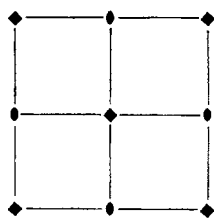
$p4$	No. 10	$p4$	4 Square
			
Origin at 4			
Number of positions	Co-ordinates of equivalent positions	Conditions limiting possible reflections	
Wyckoff notation, and point symmetry			
4 d 1 $x, y; \bar{x}, \bar{y}; y, \bar{x}; \bar{y}, x$		General: No conditions	
2 c 2 $\frac{1}{2}, 0; 0, \frac{1}{2}$		Special: $hk: h + k = 2n$	
1 b 4 $\frac{1}{2}, \frac{1}{2}$		} No conditions	
1 a 4 $0, 0$			

Table B.11. The two-dimensional square space group $p4m$ or #11 ($p4mm$)

$p4m$	No. 11	$p4mm$	$4mm$ Square
Origin at $4mm$			
Number of positions	Co-ordinates of	Conditions limiting	
Wyckoff notation,	equivalent positions	possible reflections	
and point symmetry			
8 g 1	$x, y; \bar{x}, \bar{y}; y, \bar{x}; \bar{y}, x; \bar{x}, y; x, \bar{y}; \bar{y}, \bar{x}; y, x$	General:	
		No conditions	
		Special:	
4 f m	$x, x; \bar{x}, \bar{x}; \bar{x}, x; x, \bar{x}$	} no conditions	
4 e m	$x, \frac{1}{2}; \bar{x}, \frac{1}{2}; \frac{1}{2}, x; \frac{1}{2}, \bar{x}$		
4 d m	$x, 0; \bar{x}, 0; 0, x; 0, \bar{x}$		
2 c mm	$\frac{1}{2}, 0; 0, \frac{1}{2}$	$hk: h + k = 2n$	
1 b $4mm$	$\frac{1}{2}, \frac{1}{2}$	} no conditions	
1 a $4mm$	$0, 0$		

Table B.12. The two-dimensional square space group $p4g$ or #12 ($p4gm$)

$p4g$	No. 12	$p4gm$	$4mm$ Square
Origin at 4			
Number of positions Wyckoff notation, and point symmetry	Co-ordinates of equivalent positions	Conditions limiting possible reflections	
General:			
8 d 1	$x, y; y, \bar{x}; \frac{1}{2} - x, \frac{1}{2} + y; \frac{1}{2} - y, \frac{1}{2} - x$ $\bar{x}, \bar{y}; \bar{y}, x; \frac{1}{2} + x, \frac{1}{2} - y; \frac{1}{2} + y, \frac{1}{2} + x$	hk : No conditions $h0$: $h = 2n$ ($0k$: $k = 2n$) hh : No conditions Special: as above, plus no extra conditions	
4 c m	$x, \frac{1}{2} + x; \bar{x}, \frac{1}{2} - x; \frac{1}{2} + x, \bar{x}; \frac{1}{2} - x, x$	} hk : $h + k = 2n$	
2 b $4mm$	$\frac{1}{2}, 0; 0, \frac{1}{2}$		
2 a 4	$0, 0; \frac{1}{2}, \frac{1}{2}$		

Table B.13. The two-dimensional hexagonal space group $p3$ or #13 ($p3$)

$p3$	No. 13	$p3$	3 Hexagonal
Origin at 3			
Number of positions Wyckoff notation, and point symmetry	Co-ordinates of equivalent positions	Conditions limiting possible reflections	
3 d 1	$\bar{y}, x - y; y - x, \bar{x}$	General: No conditions Special: no conditions	
1 c 3	$\frac{1}{3}, \frac{1}{3}$		
1 b 3	$\frac{1}{3}, \frac{1}{3}$		
1 a 3	$0, 0$		