CdI_2	*hP*36	(186) $P6_3mc$ – $b^{12}a^6$

CdI_2 24H_7 [1]
Structural features: Close-packed I layers in $h_2(hc)_5$ stacking; Cd occupies all octahedral voids in every second interlayer. Layer structure with infinite slabs of edge-linked CdI_6 octahedra.

Chadha G.K., Trigunayat G.C. (1967) [1]
CdI_2
a = 0.424, c = 8.202 nm, c/a = 19.344, V = 1.2770 nm^3, Z = 12

site	Wyck.	sym.	x	y	z	occ.	atomic environment
I1	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.04167		non-coplanar triangle Cd_3
I2	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.125		non-coplanar triangle Cd_3
Cd3	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.1875		octahedron I_6
I4	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.29167		non-coplanar triangle Cd_3
Cd5	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.35417		octahedron I_6
I6	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.45833		non-coplanar triangle Cd_3
Cd7	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.52083		octahedron I_6
Cd8	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.60417		octahedron I_6
I9	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.70833		non-coplanar triangle Cd_3
Cd10	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.77083		octahedron I_6
I11	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.875		non-coplanar triangle Cd_3
Cd12	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.9375		octahedron I_6
I13	2*a*	3*m*.	0	0	0.0		non-coplanar triangle Cd_3
I14	2*a*	3*m*.	0	0	0.08333		non-coplanar triangle Cd_3
I15	2*a*	3*m*.	0	0	0.16667		non-coplanar triangle Cd_3
I16	2*a*	3*m*.	0	0	0.25		non-coplanar triangle Cd_3
I17	2*a*	3*m*.	0	0	0.33333		non-coplanar triangle Cd_3
I18	2*a*	3*m*.	0	0	0.41667		non-coplanar triangle Cd_3

Transformation from published data: -*x*,-*y*,-*z*; origin shift 0 0 0.95833
Experimental: single crystal, Weissenberg photographs, X-rays

Remarks: Zhdanov notation $(2222211)_2$. We derived idealized atom coordinates from the stacking sequence.

References: [1] Chadha G.K., Trigunayat G.C. (1967), Acta Crystallogr. 23, 726-729.