

CSD Space Group Statistics – Space Group Frequency Ordering

Space group frequency ranking for the 1,294,726 CSD structures for which the space group is fully defined. Statistics for enantiomorphous space groups are as reported in the CSD. 101,4302 (78 %) of structures adopt centrosymmetric space groups, 280,424 (22 %) adopt non-centrosymmetric space groups, and 211,106 (16 %) structures adopt Sohncke space groups.

Rank	SG No.	Space Group	No. in CSD	% of CSD
1	14	P21/c	440,837	34.0
2	2	P-1	325,946	25.2
3	15	C2/c	106,626	8.2
4	19	P212121	90,094	7.0
5	4	P21	67,053	5.2
6	61	Pbca	41,436	3.2
7	33	Pna21	17,606	1.4
8	9	Cc	13,493	1.0
9	1	P1	12,922	1.0
10	62	Pnma	12,905	1.0
11	5	C2	11,072	0.9
12	60	Pbcn	10,623	0.8
13	148	R-3	10,441	0.8
14	29	Pca21	9,775	0.8
15	13	P2/c	8,444	0.7
16	12	C2/m	6,634	0.5
17	11	P21/m	5,932	0.5
18	7	Pc	5,930	0.5
19	18	P21212	5,210	0.4
20	88	I41/a	4,568	0.4
21	56	Pccn	4,534	0.4
22	43	Fdd2	4,281	0.3
23	92	P41212	2,419	<0.3
24	167	R-3c	2,398	<0.3
25	20	C2221	2,232	<0.3
26	96	P43212	2,177	<0.3
27	146	R3	1,855	<0.3
28	36	Cmc21	1,775	<0.3
29	82	I-4	1,718	<0.3
30	86	P42/n	1,633	<0.3
31	64	Cmca	1,573	<0.3
32	147	P-3	1,458	<0.3
33	114	P-421c	1,450	<0.3
34	70	Fddd	1,425	<0.3
35	176	P63/m	1,397	<0.3
36	52	Pnna	1,368	<0.3
37	41	Aba2	1,342	<0.3
38	161	R3c	1,249	<0.3
39	57	Pbcm	1,248	<0.3

40	63	Cmcm	1,237	<0.3
41	225	Fm-3m	1,226	<0.3
42	205	Pa-3	1,171	<0.3
43	76	P41	1,164	<0.3
44	152	P3121	1,130	<0.3
45	85	P4/n	1,120	<0.3
46	78	P43	1,036	<0.3
47	173	P63	1,003	<0.3
48	87	I4/m	986	<0.3
49	145	P32	943	<0.3
50	144	P31	937	<0.3
51	154	P3221	923	<0.3
52	165	P-3c1	913	<0.3
53	58	Pnnm	906	<0.3
54	169	P61	860	<0.3
55	166	R-3m	859	<0.3
56	170	P65	824	<0.3
57	198	P213	816	<0.3
58	122	I-42d	810	<0.3
59	31	Pmn21	753	<0.3
60	45	Iba2	744	<0.3
61	142	I41/acd	679	<0.3
62	130	P4/ncc	656	<0.3
63	155	R32	614	<0.3
64	194	P63/mmc	608	<0.3
65	163	P-31c	603	<0.3
66	54	Pcca	602	<0.3
67	68	Ccca	585	<0.3
68	72	Ibam	534	<0.3
69	217	I-43m	515	<0.3
70	110	I41cd	507	<0.3
71	159	P31c	459	<0.3
72	8	Cm	456	<0.3
73	221	Pm-3m	432	<0.3
74	74	Imma	404	<0.3
75	139	I4/mmm	395	<0.3
76	160	R3m	390	<0.3
77	220	I-43d	385	<0.3
78	55	Pbam	384	<0.3
79	34	Pnn2	376	<0.3
80	113	P-421m	373	<0.3
81	59	Pmmn	359	<0.3
82	178	P6122	354	<0.3
83	79	I4	353	<0.3
84	73	Ibca	352	<0.3
85	141	I41/amd	342	<0.3
86	80	I41	321	<0.3
87	23	I222	318	<0.3
88	126	P4/nnc	317	<0.3
89	65	Cmmm	303	<0.3

90	143	P3	300	<0.3
91	98	I4122	299	<0.3
92	179	P6522	291	<0.3
93	81	P-4	288	<0.3
94	229	Im-3m	271	<0.3
95	129	P4/nmm	268	<0.3
96	94	P42212	266	<0.3
97	227	Fd-3m	265	<0.3
98	128	P4/mnc	254	<0.3
=99	136	P42/mnm	247	<0.3
=99	190	P-62c	247	<0.3
101	40	Ama2	246	<0.3
102	123	P4/mmm	243	<0.3
103	121	I-42m	237	<0.3
104	218	P-43n	236	<0.3
105	3	P2	233	<0.3
106	197	I23	231	<0.3
107	182	P6322	230	<0.3
=108	71	Immm	223	<0.3
=108	118	P-4n2	223	<0.3
110	26	Pmc21	222	<0.3
111	204	Im-3	221	<0.3
112	32	Pba2	220	<0.3
113	10	P2/m	200	<0.3
114	215	P-43m	199	<0.3
115	222	Pn-3n	198	<0.3
116	191	P6/mmm	195	<0.3
117	53	Pmna	190	<0.3
118	228	Fd-3c	189	<0.3
119	164	P-3m1	188	<0.3
120	30	Pnc2	186	<0.3
121	186	P63mc	184	<0.3
122	206	Ia-3	182	<0.3
123	46	Ima2	181	<0.3
124	69	Fmmm	178	<0.3
125	131	P42/mmc	175	<0.3
126	140	I4/mcm	174	<0.3
127	138	P42/ncm	173	<0.3
128	137	P42/nmc	167	<0.3
129	66	Ccm	165	<0.3
130	104	P4nc	160	<0.3
131	203	Fd-3	158	<0.3
132	199	I213	157	<0.3
133	192	P6/mcc	154	<0.3
134	230	Ia-3d	153	<0.3
135	37	Ccc2	152	<0.3
136	196	F23	144	<0.3
=137	77	P42	137	<0.3
=137	97	I422	137	<0.3
=139	90	P4212	134	<0.3

=139	158	P3c1	134	<0.3
=139	223	Pm-3n	134	<0.3
142	106	P42bc	133	<0.3
143	135	P42/mbc	132	<0.3
=144	50	Pban	131	<0.3
=144	120	I-4c2	131	<0.3
146	84	P42/m	127	<0.3
147	150	P321	126	<0.3
=148	91	P4122	125	<0.3
=148	219	F-43c	125	<0.3
150	67	Cmma	124	<0.3
151	124	P4/mcc	123	<0.3
152	95	P4322	119	<0.3
153	226	Fm-3c	115	<0.3
154	17	P2221	113	<0.3
155	193	P63/mcm	108	<0.3
156	209	F432	107	<0.3
157	127	P4/mbm	104	<0.3
=158	42	Fmm2	103	<0.3
=158	117	P-4b2	103	<0.3
=158	211	I432	103	<0.3
161	51	Pmma	100	<0.3
=162	48	Pnnn	97	<0.3
=162	171	P62	97	<0.3
=164	21	C222	94	<0.3
=164	44	Imm2	94	<0.3
166	180	P6222	91	<0.3
167	24	I212121	87	<0.3
=168	202	Fm-3	80	<0.3
=168	213	P4132	80	<0.3
170	39	Abm2	79	<0.3
=171	75	P4	78	<0.3
=171	210	F4132	78	<0.3
=173	212	P4332	77	<0.3
=173	216	F-43m	77	<0.3
=175	162	P-31m	75	<0.3
=175	172	P64	75	<0.3
177	125	P4/nbm	74	<0.3
178	177	P622	73	<0.3
179	134	P42/nnm	72	<0.3
180	201	Pn-3	71	<0.3
181	109	I41md	70	<0.3
182	38	Amm2	67	<0.3
183	175	P6/m	66	<0.3
184	181	P6422	64	<0.3
=185	47	Pmmm	62	<0.3
=185	83	P4/m	62	<0.3
187	133	P42/nbc	60	<0.3
188	116	P-4c2	58	<0.3
189	189	P-62m	57	<0.3

=190	108	I4cm	55	<0.3
=190	200	Pm-3	55	<0.3
192	207	P432	54	<0.3
193	187	P-6m2	52	<0.3
194	22	F222	51	<0.3
195	6	Pm	49	<0.3
196	174	P-6	48	<0.3
197	119	I-4m2	47	<0.3
=198	27	Pcc2	42	<0.3
=198	214	I4132	42	<0.3
=200	16	P222	41	<0.3
=200	103	P4cc	41	<0.3
=200	185	P63cm	41	<0.3
=200	224	Pn-3m	41	<0.3
204	112	P-42c	40	<0.3
205	168	P6	37	<0.3
206	102	P42nm	36	<0.3
=207	151	P3112	35	<0.3
=207	195	P23	35	<0.3
209	132	P42/mcm	34	<0.3
210	153	P3212	30	<0.3
211	107	I4mm	29	<0.3
212	157	P31m	28	<0.3
213	49	Pccm	24	<0.3
214	28	Pma2	21	<0.3
215	149	P312	20	<0.3
=216	89	P422	19	<0.3
=216	188	P-6c2	19	<0.3
218	184	P6cc	18	<0.3
219	100	P4bm	17	<0.3
220	156	P3m1	16	<0.3
221	35	Cmm2	14	<0.3
222	25	Pmm2	12	<0.3
223	93	P4222	10	<0.3
=224	99	P4mm	9	<0.3
=224	101	P42cm	9	<0.3
=224	111	P-42m	9	<0.3
227	208	P4232	8	<0.3
228	115	P-4m2	7	<0.3
229	183	P6mm	4	<0.3
230	105	P42mc	3	<0.3