Cambridge Structural Database
1 January 2025

CSD R-factor Statistics

The precision of crystal structure determinations is often assessed using the crystallographic R-factor, a measure of how well the structure factors computed using the refined structural model agree with structure factors given by the experimentally observed diffraction intensities. CSD structures with unreported R-factors often arise from short communications, and most frequently from the earlier literature.

R–factor range	No. in range	% CSD	Cumulative %
0.0100–0.0300	175,920	12.9	12.9
0.0301–0.0400	290,248	21.3	34.2
0.0401–0.0500	299,346	22.0	56.2
0.0501–0.0700	350,376	25.7	81.9
0.0701–0.0900	136,407	10.0	91.9
0.0901–0.1000	33,023	2.4	94.3
0.1001–0.1500	46,663	3.4	97.7
0.1501–	9,888	0.7	98.5
Not reported	20,938	1.5	100.0