

Supplementary Table 1. Diffraction quality of the data with respect to resolution for different φ rotation ranges.

Total φ rotation	Resolution in Å	50-5.08	5.08-4.03	4.03-3.53	3.53-3.2	3.2-2.97	2.97-2.8	2.8-2.66	2.66-2.54	2.54-2.44	2.44-2.36	All
90°	$I/\sigma(I)$	27.45	26.59	22.38	17.16	11.82	8.25	6.32	5.19	4.62	4.39	16.68
	R_{merge}	0.041	0.032	0.030	0.041	0.058	0.078	0.098	0.105	0.112	0.122	0.044
	Completeness	89.3	97.1	97.5	97.2	94.6	89.8	85	74.7	58.1	30.9	81.6
	Redundancy	1.9	1.8	1.9	1.8	1.8	1.8	1.7	1.6	1.6	1.5	1.8
180°	$I/\sigma(I)$	38.83	38.65	33.48	26.49	18.40	12.86	9.86	7.37	5.93	4.93	23.19
	R_{merge}	0.039	0.034	0.040	0.044	0.064	0.085	0.104	0.122	0.127	0.13	0.048
	Completeness	98.7	99.9	99.6	99.4	99.1	98.5	96.9	93.9	84.0	56.3	92.7
	Redundancy	3.4	3.6	3.7	3.6	3.5	3.3	3.1	2.8	2.5	2.0	3.2
270°	$I/\sigma(I)$	48.70	48.89	42.32	33.49	23.23	16.46	12.20	9.19	7.17	5.66	28.71
	R_{merge}	0.042	0.036	0.040	0.049	0.068	0.091	0.112	0.131	0.141	0.145	0.052
	Completeness	99.1	100	99.80	99.5	99.1	98.7	97.9	95.3	86.2	62.9	93.9
	Redundancy	5.1	5.4	5.5	5.5	5.3	5	4.6	4.1	3.6	2.8	4.8
360°	$I/\sigma(I)$	56.16	56.16	48.42	38.55	26.72	18.93	13.97	10.39	7.76	6.01	32.67
	R_{merge}	0.043	0.038	0.040	0.052	0.071	0.096	0.118	0.138	0.148	0.149	0.054
	Completeness	99.3	100	99.8	99.6	99.3	99.2	98.2	96.1	87.9	63.6	94.4
	Redundancy	6.8	7.2	7.3	7.3	7.0	6.6	6.1	5.3	4.5	3.3	6.3