

Table S1

	Native	MAD (SeMet)		
		Peak	Inflection	Remote
Diffraction Data				
Wavelength (Å)	1.5418	0.97860	0.9792	0.9070
Space Group	P2 ₁	P2 ₁ 2 ₁ 2 ₁	P2 ₁ 2 ₁ 2 ₁	P2 ₁ 2 ₁ 2 ₁
Unit-cell parameters (Å)	a=62.13, b=82.438, c=87.732; β=106.3	a=62.788, b=83.477, c=177.588	a=62.786, b=83.492, c=177.594	a=62.786, b=83.508, c=177.615
Resolution (Å)	50.00-2.44 (2.47-2.44)	50.00-1.80 (1.83-1.80)	50.00-1.80 (1.83-1.80)	50.00-1.80 (1.83-1.80)
<I/σ(I)>	13.9 (2.6)	14.8 (2.5)	17.8 (2.4)	16.7 (2.0)
Temperature (K)	100	100	100	100
Measured Reflections (<i>n</i>)	119278	528361	550502	517345
Unique Reflections (<i>n</i>)	31620	87173	87248	87717
Completeness (%)	98.5 (82.1)	99.9 (99.8)	100.0 (100.0)	100.0 (99.9)
Multiplicity	3.8 (3.5)	6.1 (5.5)	6.3 (5.9)	5.9 (5.5)
R _{merge} ^a (%)	10.1 (49.1)	10.7 (70.2)	10.3 (75.7)	10.7 (81.2)
Sites (<i>n</i>)	-	8	8	8
Refinement Statistics				
Resolution range (Å)	33.91-2.44		34.11-1.69	
R-factor/R _{free} (%) ^{b,c}	20.0/25.7		19.4/21.5	
Average B-Factor (Å ²)	33.20		25.10	
R.M.S.D in bond lengths (Å)	0.0016		0.0036	
R.M.S.D in bond lengths (°)	0.497		0.821	
Ramachandran Plot (%)				
Favoured	97.5		98.7	
Allowed	2.1		1.1	
Outliers	0.4		0.2	

^a $R_{merge} = \frac{\sum_{hkl} \sum_i |I_i(hkl) - \langle I(hkl) \rangle|}{\sum_{hkl} \sum_i I_i(hkl)}$, where $I_i(hkl)$ is the *i*th measurement and $\langle I(hkl) \rangle$ is the weighted average of all measured reflections.

^b $R - factor = \frac{\sum ||F_{obs}(hkl)| - |F_{calc}(hkl)||}{\sum |F_{obs}(hkl)|}$

^c R_{free} is the R-factor computed for the test set of reflections omitted from the refinement process.