(*a*) Sample details			
	MS2 VLP	Bacteriophage MS2	MS2 RNA
Organism	*Escherichia phage MS2*	*Escherichia phage MS2*	*Escherichia phage MS2*
Source (Catalogue No. or reference)	E.Coli Expression Plasmid synthesised by ATUM	ATCC® 15597-B1™	Sigma-Roche 10165948001
Description: sequence	P03612	N/A	N/A
Molecular mass *M* from chemical composition (Da)	13728 Da (2.48MDa as VLP)	3.7MDa	1.6 M Da
Solvent composition and source	50mM Tris HCl pH 7.5 150mM NaCl	50mM Tris HCl pH 7.5 150mM NaCl	50mM Tris HCl pH 7.5 150mM NaCl (1mM $MgCl_2$)
(*b*) SAS data collection parameters			
Source, instrument and description or reference			Advanced Photon Source: BioCat
Wavelength (Å)			10.3 Å
Sample to detector distance			3.69m
q-measurement range			0.01-0.35 Å
Basis for normalization to constant counts			Diode
Sample temperature (ºC)			22^{o}C
(*c*) Software employed for SAS data reduction, analysis and interpretation			
SAS data reduction to sample–solvent scattering, and extrapolation, merging, desmearing *etc*. as relevant			BioXTAS RAW
Basic analyses: Guinier, *P*(*r*)			BioXTAS RAW; ATSAS GNOM
Shape/bead modelling			ATSAS: MONSA & DAMMIF
Molecular graphics			USCF CHIMMERA

(*e*) MONSA Modelling					
Bacterophage MS2 at:	**0% Sucrose**	**40% Sucrose**	**50% Sucrose**	**60% Sucrose**	**65% Sucrose**
q-range for fitting	0.005-0.35	0.005-0.35	0.005-0.35	0.01-0.35	0.01-0.35
Symmetry/anisotropy assumptions	None	None	None	None	None
c^2 value/range	2.65	5.05	4.88	6.3	12.3
Multiphase Properties		**Rg:**		**Volume:**	
Protein Phase Properties		114.9		6.30E+06	
RNA Phase Properties		96.52		5.10E+06	