Table S4. Characteristics of Mgryph deletion mutants\* in genes for which Tn5-insertion yielded a magnetosome phenotype

Locus-tag MSR1(L)_	Locus-tag MGMSRv2_	Gene name	Magnetic phenotype (Δ) compared to WT	ΤΕΜ (Δ)
29190	3192	ccmI (cycH)	less magnetosomes	ΔMSR1_29190 
22700	2273	dsbA	shorter chains	ΔMSR1_22700
17040	511	dsbB	smaller and less magnetosomes	<u>0.5 μm</u>
17450-17420	468-471	sir-cysH-cysD-cysC	significantly increased number of defective crystals, higher prevalence of cells with double magnetosome chains	100 nm

<sup>\*</sup>grown microaerobically in flask standard medium (FSM, U. Heyen and D. Schüler, Appl Microbiol Biotechnol 61, 2003, doi: 10.1007/s00253-002-1219-x)