

Table S1. C, N, O 1s and Fe 2p NEXAFS-derived atomic ratios for cell, stalk, and particles in *M. ferrooxydans* culture sample.

	cell	stalk	particles
C:Fe	105±25	2.9±0.4	2.4±0.4
C:N	3±0.7	15.3±3	10±2
C:O	3±0.5	0.4±0.07	0.3±0.07
N:O	1±0.2	0.03±0.01	0.03±0.01
O:Fe	35±9	6.8±1.5	8.3±1.7