

		16S rRNA gene (%)					dDDH (d <sub>4</sub> , %)					ANI (%)				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
<i>Trv. frisius</i>	1	-	98.0	97.5	96.2	92.5	-	26.5	34.2	23.5	27.0	-	81.9	83.7	77.6	68.8
<i>Trv. winogradskyi</i>	2		-	97.5	96.6	92.2		-	25.3	22.7	29.0		-	79.1	77.7	68.9
<i>Trv. litoralis</i>	3			-	95.5	92.6			-	24.0	27.8			-	76.9	68.9
<i>Rhabdochromatium marinum</i>	4				-	93.0				-	21.7				-	68.9
<i>Thiospirillum jenense</i>	5					-					-					-

**Table S2. Genetic speciation characteristics of *Thiorhodovibrio* sp. and associated photosynthetic relatives.** A Comparison of three genome-sequenced *Thiorhodovibrio* strains, *Rhabdochromatium marinum* DSM 5261<sup>T</sup>, and *Thiospirillum jenense* DSM 216<sup>T</sup> using 16S rRNA gene similarity, Digital DNA-DNA hybridization values (dDDH) and Average Nucleotide Identity (ANI) values between the five genomes.