

# Roseiconus nitratireducens gen. nov. sp. nov and Roseiconus lacunae sp. nov.

Submitted by Van Lill, Melandre

**Table 1:** Complete list of names proposed in the current register list.

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus <i>Roseiconus</i>	[Ro.se.i.co'nus] L. <b>masc. adj.</b> <i>roseus</i> , pink, rosy; L. <b>masc. n.</b> <i>conus</i> , cone; <b>N.L. masc. n.</b> <i>Roseiconus</i> , a pink cone	Cells are spherical or cone to pear-shaped and Gram stain-negative. Crateriform structures with fimbriae are common. Daughter cells may be motile with lophotrichous flagella. Cell division is by budding. Mesophilic, heterotrophic and facultatively anaerobic. Major fatty acids are C18:1 $\omega$ 9c and C16:0. Phosphatidylethanolamine and phosphatidylcholine are the major polar lipids. Cadaverine and putrescine are the major polyamines. In addition, some strains can also have 1,2-diaminopropane and spermidine. MK6 is the only respiratory quinone. The genomic DNA G + C content is 55.1–60.0 mol%. The type species is <i>Roseiconus nitratireducens</i> . This genus is a member of the family <i>Pirellulaceae</i> .	<i>Pirellulaceae</i>	<i>Roseiconus nitratireducens</i> <sup>Ts</sup>	<a href="https://seqco.de/i:32093">seqco.de/i:32093</a>
Species <i>Roseiconus lacunae</i>	[la.cu'nae] L. <b>gen. n.</b> <i>lacunae</i> , of a lagoon	Colour of chemotrophically grown culture is light pink. Cells are motile with lophotrichous flagella. NaCl is obligate for growth and tolerates up to 5% (w/v) with optimum growth at 3%. Optimum pH and temperature for growth are 8.0 (range 6.0–9.0) and 30 °C (range 10–35 °C), respectively. Growth factors are not required for growth. D-glucose, fructose, mannose, maltose, sucrose, starch, D-xylose, lactose, D-galactose and rhamnose are good carbon sources/electron donors for supporting its growth. Ammonium sulphate, peptone, L-serine, DL-threonine, L-leucine and DL-alanine, L-isoleucine, L-phenylalanine, L-glutamic acid and L-aspartic acid are utilized as nitrogen sources for its growth. Major fatty acids are C18:1 $\omega$ 9c, C16:0 and anteiso-C13:0. Minor fatty acids include C10:0 3-OH, C12:0, C11:0 3-OH, C14:0, anteiso-C15:0, C16:1 $\omega$ 7c/C16:1 $\omega$ 6c, C17:0, C17:1 $\omega$ 8c, anteiso-C17:0, C18:0, C18:1 $\omega$ 7c/C18:1 $\omega$ 6c, anteiso-C12:0, C16:0 3-OH, anteiso-C16:0, anteiso-C17:1 A and C18:3 $\omega$ 6,9,12c. Polyamines are 1,2-diaminopropane, cadaverine, spermidine, putrescine, and two unidentified polyamines. Polar lipids are phosphatidylethanolamine (PE), phosphatidylcholine (PC), unidentified amino lipids (AL 1), and one unidentified lipid (L1). Genomic DNA G + C content is 55.1 mol%. The reference strain JC635 (= KCTC 72164 = NBRC 113875) was isolated from Chilika lagoon, India (19° 51' 15N, 85° 21' 19E).	<i>Roseiconus</i>	NCBI Assembly: GCA_008312935.1 <sup>Ts</sup>	<a href="https://seqco.de/i:32094">seqco.de/i:32094</a>

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Roseiconus</i> <i>nitratireducens</i> <sup>Ts</sup>	[ni.tra.ti.re.du'cens] <b>N.L. masc. n.</b> <i>nitras</i> , nitrate; <b>L.</b> <b>pres. part.</b> <i>reducens</i> , reducing; <b>N.L. part.</b> <b>adj.</b> <i>nitratireducens</i> , nitrate-reducing	Colour of chemotrophically grown culture is pink. Motility could not be demonstrated. NaCl is obligate for growth and can tolerate up to 7% (w/v) NaCl. Optimum pH and temperature for growth are 8.0 (range 7.0–9.0) and 30°C (range 10–35 °C), respectively. D-Glucose, fructose, mannose, maltose, sucrose, starch, D-xylose, rhamnose, pyruvate and inulin are good carbon sources for supporting growth. Ammonium sulphate, peptone, L-serine, DL-threonine, L-leucine, DL-alanine, cysteine, L-glutamine, L-proline and urea can be used as nitrogen sources for growth. Major fatty acids are C18:1 $\omega$ 9c and C16:0. Minor fatty acids include C10:0 3-OH, C12:0, C11:0 3-OH, C14:0, anteiso-C15:0, C16:1 $\omega$ 7c/C16:1 $\omega$ 6c, C17:0, C17:1 $\omega$ 8c, anteiso-C17:0, C18:0, C18:1 $\omega$ 7c/C18:1 $\omega$ 6c, C15:0 2-OH, C19:0 and C20:1 $\omega$ 9c and C18:3 $\omega$ 6,9,12c. Cadaverine, putrescine and an unidentified polyamine (UN1) are the polyamines. Genomic DNA G + C content is 60 mol%. The reference strain JC645 (= KCTC 72174 = NBRC 113879) was isolated from Chilika lagoon, India (19° 51' 15N, 85° 21' 19E).	<i>Roseiconus</i>	NCBI Assembly: GCA_008629675.1 <sup>Ts</sup>	<a href="https://seqco.de/i:32092">seqco.de/i:32092</a>