

Compendium of Actinobacteria from Dr. Joachim M. Wink  
University of Braunschweig

|             |                           |  |
|-------------|---------------------------|--|
| Strain      |                           | DSM 23847  |
| Genus       |                           | <b><i>Citricoccus</i></b>  |
| Species     |                           | <b><i>zhacaiensis</i></b>  |
| Status      |                           |  |
| Risk group  |                           | L1   |
| Type strain |                           | DSM 23847, FS24, CGMCC 1.7064, JCM 15136   |
| Reference   |                           |  |
| Author      |                           | Meng, F. X., Yang, X. C., Yu, P. S., Pan, J. M., Wang, C. S., Xu, X. W., Wu, M.                      |
| Title       |                           | <i>Citricoccus zhacaiensis</i> sp. nov., isolated from a bioreactor for saline wastewater treatment. |
| Journal     |                           | Int J Syst Evol Microbiol  |
| Volume      |                           | 60 ( Pt 3)   |
| Page        |                           | 495-499  |
| Year        |                           | 2010   |
| Morphology  |                           |  |
| Agar        | ISP 2 - growth/G          | Good   |
| Agar        | ISP 2 - colony color/R    | Zinc yellow (1018)   |
| Agar        | ISP 2 - aerial mycelium/A | None   |
| Agar        | ISP 2 - soluble pigment/S | None   |
| Agar        | ISP 3 - G                 | Decreased - good   |
| Agar        | ISP 3 - R                 | None   |
| Agar        | ISP 3 - A                 | None   |
| Agar        | ISP 3 - S                 | None- zinc yellow (1018)   |
| Agar        | ISP 4 - G                 | Decreased – good   |
| Agar        | ISP 4 - R                 | None   |
| Agar        | ISP 4 - A                 | None   |
| Agar        | ISP 4 - S                 | None   |
| Agar        | ISP 5 - G                 | Decreased – good   |
| Agar        | ISP 5 - R                 | Zinc yellow (1018)   |
| Agar        | ISP 5 - A                 | None   |
| Agar        | ISP 5 - S                 | None   |
| Agar        | ISP 6 - G                 | /  |
| Agar        | ISP 6 - R                 | /  |
| Agar        | ISP 6 - A                 | /  |
| Agar        | ISP 6 - S                 | /  |
| Agar        | ISP 7 - G                 | Good   |
| Agar        | ISP 7 - R                 | Zinc yellow (1018)   |
| Agar        | ISP 7 - A                 | None   |
| Agar        | ISP 7 - S                 | None   |
| Agar        | suter with tyrosine - G   | Good   |
| Agar        | suter with tyrosine - R   | lemon yellow (1012)  |

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|                          |                                |                    |
|--------------------------|--------------------------------|--------------------|
| Agar                     | suter with tyrosine - A        | None               |
| Agar                     | suter with tyrosine - S        | Zinc yellow (1018) |
| Agar                     | suter without tyrosine - G     | Decreased – good   |
| Agar                     | suter without tyrosine - R     | Zinc yellow (1018) |
| Agar                     | suter without tyrosine - A     | None               |
| Agar                     | suter without tyrosine - S     | None               |
|                          | Sporechains/Sporangia          |                    |
| Physiology               |                                |                    |
| Melanin                  |                                | -                  |
| pH                       | range                          |                    |
| pH                       | optimum                        |                    |
| temperature              | range                          |                    |
| temperature              | optimume                       |                    |
| sodim chloride tolerance |                                | 10%                |
| lysozyme tolerance       |                                |                    |
| use of carbohydrates     | glucose                        | -                  |
| use of carbohydrates     | arabinose                      | -                  |
| use of carbohydrates     | sucrose                        | +                  |
| use of carbohydrates     | xylose                         | -                  |
| use of carbohydrates     | inositol                       | -                  |
| use of carbohydrates     | mannose                        | -                  |
| use of carbohydrates     | fructose                       | -                  |
| use of carbohydrates     | rhamnose                       | -                  |
| use of carbohydrates     | raffinose                      | -                  |
| use of carbohydrates     | cellulose                      | (+)                |
| Api zym                  | Phosphatase alcaline           | 0                  |
| Api zym                  | Esterase (C4)                  | 0                  |
| Api zym                  | Esterase Lipase (C8)           | 0                  |
| Api zym                  | Lipase (C14)                   | 0                  |
| Api zym                  | Leucin arylamidase             | 3                  |
| Api zym                  | Valine arylamidase             | 0                  |
| Api zym                  | Cystine arylamidase            | 0                  |
| Api zym                  | Trypsin                        | 2                  |
| Api zym                  | Chymotrypsin                   | 0                  |
| Api zym                  | Phosphatase acid               | 0                  |
| Api zym                  | Naphtol-AS-BI-phosphohydrolase | 0                  |
| Api zym                  | alpha galactosidase            | 0                  |
| Api zym                  | beta galactosidase             | 0                  |
| Api zym                  | beta glucuronidase             | 0                  |
| Api zym                  | alpha glucosidase              | 0                  |
| Api zym                  | beta GLUCOSIDASE               | 0                  |
| Api zym                  | N-acetyl-beta-glucoseamidase   | 0                  |
| Api zym                  | alpha mannosidase              | 0                  |
| Api zym                  | alpha fucosidase               | 0                  |

|            |                               |   |
|------------|-------------------------------|---|
| Api coryne | nitrate reduction             | - |
| Api coryne | Pyrazinamidase                | + |
| Api coryne | Pyrrolidonyl arylamidase      | - |
| Api coryne | Alkaline phosphatase          | - |
| Api coryne | beta glucuronidase            | - |
| Api coryne | beta galactosidase            | - |
| Api coryne | alpha glucosidase             | - |
| Api coryne | N-acetyl -beta glucoseamidase | - |
| Api coryne | Esculin (beta glucosidase)    | - |
| Api coryne | Urease                        | + |
| Api coryne | Gelatine(hydrolysis)          | - |
| Api coryne | Glucose fermentation          | - |
| Api coryne | Ribose fermentation           | - |
| Api coryne | Xylose fermentation           | - |
| Api coryne | Mannitol fermentation         | - |
| Api coryne | Maltose fermentation          | - |
| Api coryne | Lactose fermentation          | - |
| Api coryne | Sucrose fermentation          | - |
| Api coryne | Glycogen fermentation         | - |

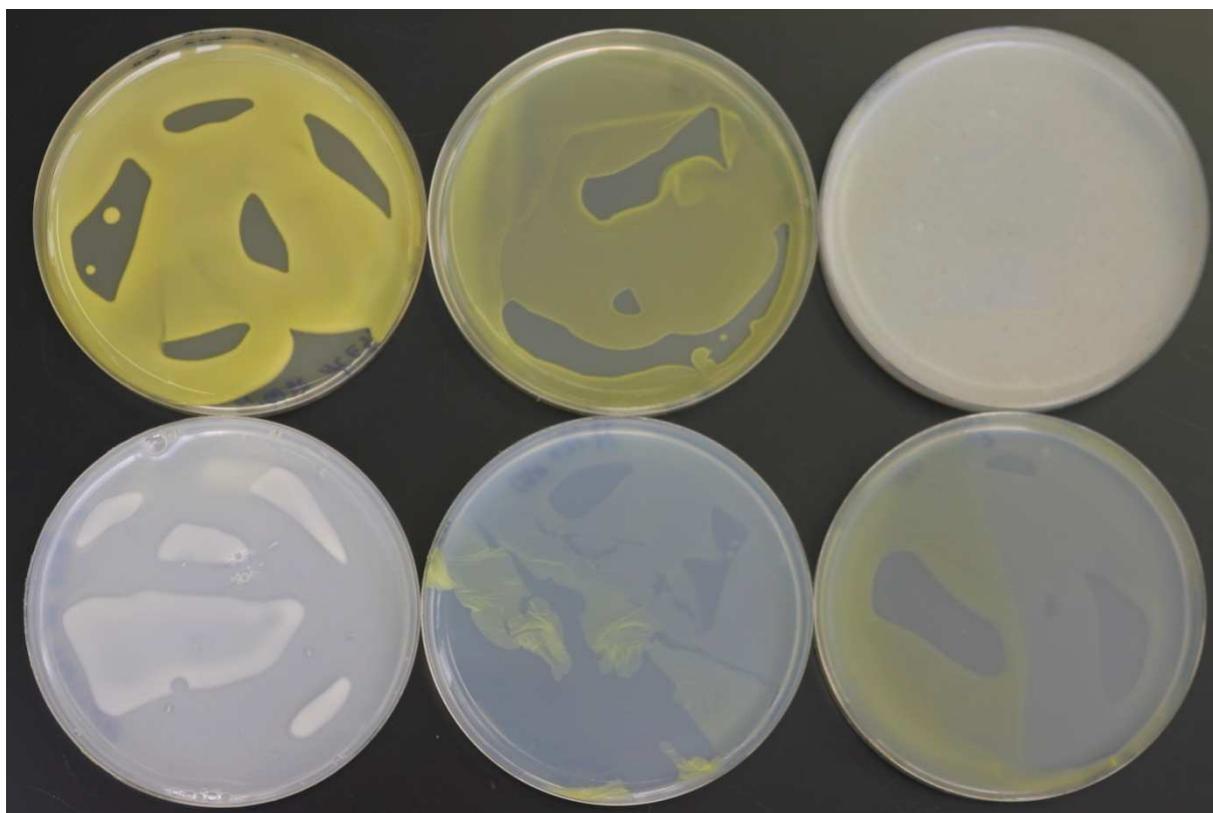
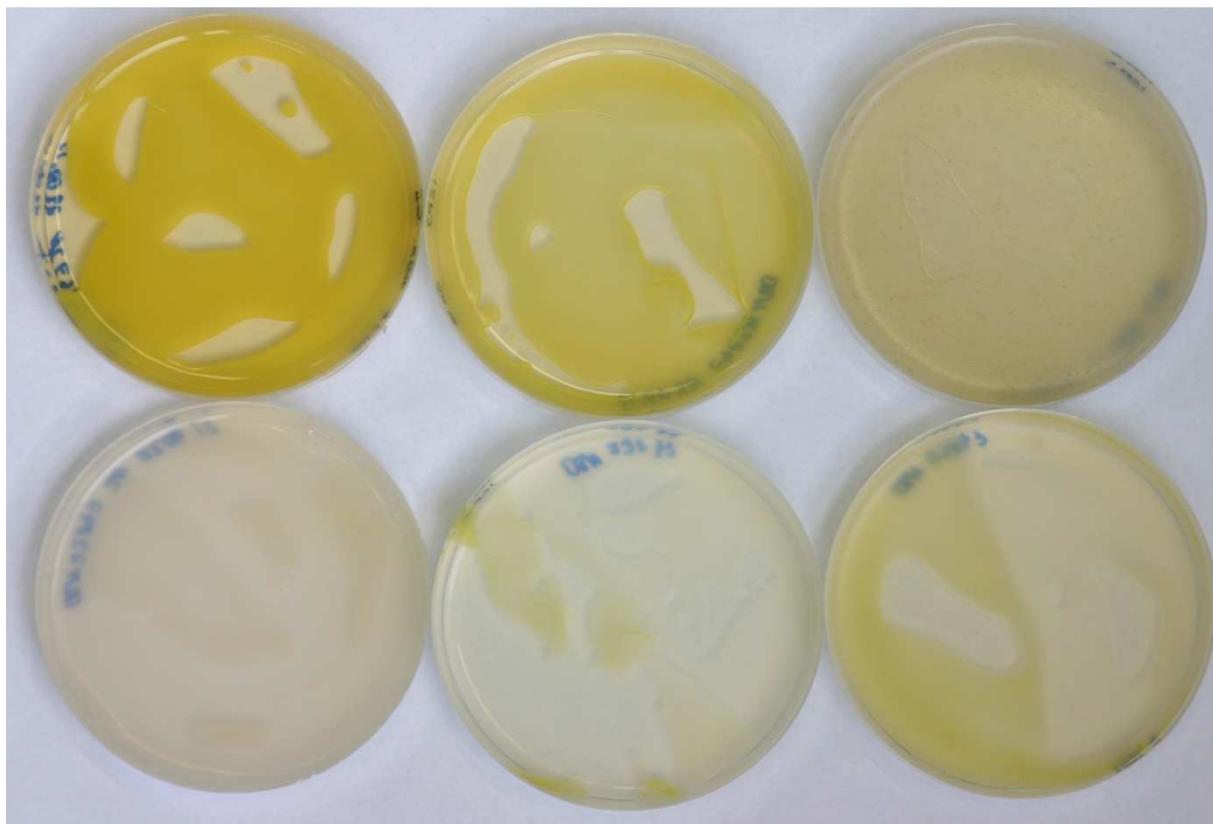
### Apicoryne



### Apizym



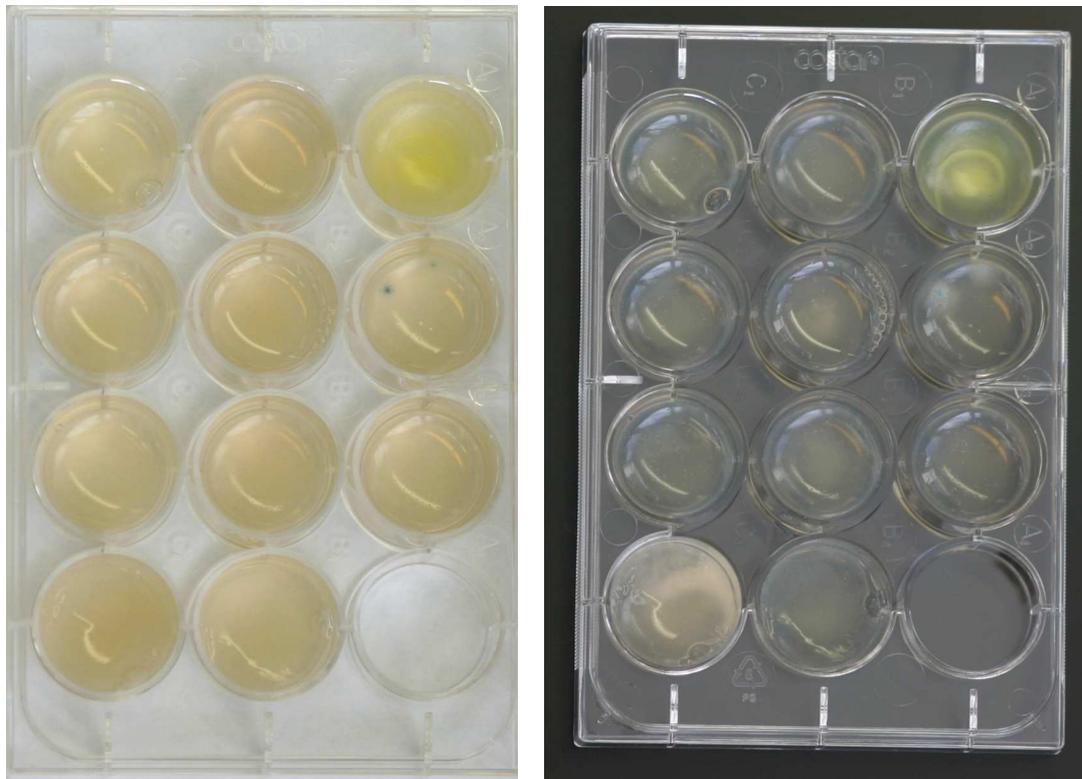
**Plates** (DSM 92, ISP2, ISP3, ISP4, ISP5, ISP7)



(SSM+T, SSM-T)



**Carbon utilization test (from top left to bottom right: glucose, arabinose, sucrose, xylose, inositol, mannose, fructose, rhamnose, raffinose, cellulose)**



**Sodium chloride tolerance test (from top left to bottom right: 0%, 2,5%, 5%, 7,5%, 10%)**

