

CULTURE PROFILE

Stenotrophomonas acidaminiphila

First described 2002 · Biosafety risk group 1 · NCBI TaxID 128780 · 181 evidence sentences · 59 sources

cellular organisms; Bacteria; Pseudomonadati; Pseudomonadota; Gammaproteobacteria; Lysobacterales; Lysobacteraceae; Stenotrophomonas

UNREVIEWED — not verified by a microbiologist

At a glance

1	Media used	Basal salts / minimal medium; Luria-Bertani (LB); Tryptic soy broth (TSB); Tryptic soy agar (TSA); +1 more	moderate
2	Optimum temperature for growth	55–75 °C	moderate
3	Time required to grow	5 d	moderate
4	Colony morphology	The colonies of strain BJ1 on LB plate were round with edge neat, uplifted surface, opaque and yellow in colour.	low
5	Gram character	Gram-negative	high
6	Biochemical tests for identification	16S rRNA gene sequencing; Whole-genome sequencing / ANI — reported positive; MALDI-TOF MS; Indole; +10 more	high

1 Media used

moderate confidence

• Basal salts / minimal medium

Moderate · score 9.96 · 6 sources

"The strain JS-1 exhibited substantial growth in M9 mineral salt medium supplemented with 3.2 mmol l(-1) butachlor, as a sole source of carbon and energy."

Isolation and characterization of butachlor-catabolizing bacterial strain Stenotrophomona... — PubMed (NCBI E-utilities), 2010

• Luria-Bertani (LB)

Moderate · score 7.64 · 3 sources

"Maximum specific growth rate ($\mu_{max} = 0.362 \text{ h}^{-1}$) of the bacterium in the optimized medium did not differ significantly from those in Luria-Bertani and trypticase soy broths."

A novel strain of Stenotrophomonas acidaminiphila produces thermostable alkaline peptidas... — PubMed (NCBI E-utilities), 2022

• Tryptic soy broth (TSB)

Low · score 2.79 · 2 sources

"Maximum specific growth rate ($\mu_{max} = 0.362 \text{ h}^{-1}$) of the bacterium in the optimized medium did not differ significantly from those in Luria-Bertani and trypticase soy broths."

A novel strain of Stenotrophomonas acidaminiphila produces thermostable alkaline peptidas... — PubMed (NCBI E-utilities), 2022

• Tryptic soy agar (TSA)

Low · score 0.93 · 1 source

"In both cases, irradiated cells were serially diluted (10-fold) in normal saline (0.90% NaCl) and plated on trypticase soy agar (TSA) by the spread plate technique and incubated at 30 °C for 48 h in the dark to obtain viable cells."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

• Nutrient broth

Low · score 0.81 · 1 source

"Six highly copper-tolerant isolates named as MYS1, MYS2, MYS3, MYS4, MYS5 and MYS6 were isolated through enrichment in copper containing nutrient broth."

Copper-tolerant rhizosphere bacteria-characterization and assessment of plant growth prom... — PubMed (NCBI E-utilities), 2017

2 Optimum temperature for growth

moderate confidence

55–75 °C

Moderate · score 7.14 · 2 sources

"4 a shows that optimum temperature for protease activity ranged from 55 to 75 °C making it thermo-stable; the stability of which lasted for 60 min at 55-65 °C."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

"4 a shows that optimum temperature for protease activity ranged from 55 to 75 °C making it thermo-stable; the stability of which lasted for 60 min at 55-65 °C."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

"Many *Bacillus* proteases have activity optima lower than 75 °C giving the protease in this study significant advantage."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

37.2 °C

Moderate · score 5.59 · 2 sources

"The optimum conditions for DBP degradation were determined by response surface methodology (RSM) analysis to be 30.9 mg/l DBP concentration, pH 7.5, at a culture temperature of 37.2 °C."

Isolation of Dibutyl Phthalate-Degrading Bacteria and Its Coculture with *Citrobacter* freu... — PubMed (NCBI E-utilities), 2022

"Proteolytic activity was evaluated using azocasein and casein assays after cultivation in an optimized medium containing 1% soybean paste as an inducer at 37 °C and 120 rpm for 72 h."

Bioprospecting of Aerobic Bacteria with Proteolytic Potential Isolated from Animal and Wa... — Europe PMC, 2026

"The strain efficiently degraded 300 ng/mL of OTA within 72 h (98% degradation) under optimal conditions of 37 °C, pH 5.0, and 180 rpm."

Detoxification of Ochratoxin a by *Weizmannia coagulans*; CGMCC 9951: Cha... — Europe PMC, 2026

55–65 °C

Moderate · score 4.91 · 2 sources

"4 a shows that optimum temperature for protease activity ranged from 55 to 75 °C making it thermo-stable; the stability of which lasted for 60 min at 55-65 °C."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

"Enzyme kinetic studies indicated optimal laccase activity at temperatures of 45-55 °C and pH levels of 4-7, with isolates TR32, SH2A, and AK17 producing laccase activities exceeding 90 U/L. Molecular characterization via 16 S rRNA sequencing identified these isolates as belonging to genera such as *Pseudomonas*, *Enterobacter*, *Acinetobacter*, and *Klebsiella*, known for their lignocellulolytic enzyme production."

Bio decomposition of paddy straw waste using laccase producing novel soil bacterial isola... — Europe PMC, 2026

"Optimization in modified TSB (MTSB), containing 0.6% sucrose and 4% yeast extract at pH 6.0 and 55 °C, enhanced EPS production 5.5-fold to 0.4524 ± 0.0176 g/100 ml compared with 0.0821 ± 0.0076 g/100 ml in standard TSB."

Scaling EPS yield and bio-carrier application of *Bacillus paralicheniformis*;... — Europe PMC, 2026

30 °C

Low · score 4.25 · 4 sources

"At initial concentrations of 50, 100, 200 and 300 mg l⁻¹, it degraded 91.5%, 89.4%, 86.5% and 83.5% of chlorothalonil after 96 h of inoculation under optimum conditions (30 °C and pH 7.0)."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed (NCBI E-utilities), 2019

"At initial concentrations of 50, 100, 200 and 300 mg l⁻¹, it degraded 91.5%, 89.4%, 86.5% and 83.5% of chlorothalonil after 96 h of inoculation under optimum conditions (30 °C and pH 7.0)."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — Crossref, 2019

"At initial concentrations of 50, 100, 200 and 300 mg l⁻¹, it degraded 91.5%, 89.4%, 86.5% and 83.5% of chlorothalonil after 96 h of inoculation under optimum conditions (30 °C and pH 7.0)."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — DOAJ, 2019

Sources disagree: "55–75 °C" (score 7.14) versus "37.2 °C" (score 5.59). Both are shown; a reviewer should decide.

3 Time required to grow

moderate confidence

5 d

Moderate · score 8.18 · 4 sources

"Y4B demonstrated strong competitiveness and substantially accelerated the degradation of glyphosate in different soils, degrading 71.93 and 89.81% of glyphosate (400 mg kg⁻¹) within 5 days in sterile and nonsterile soils, respectively."

Effects of Free or Immobilized Bacterium *Stenotrophomonas acidaminiphila* Y4B on Glyphosat... — PubMed (NCBI E-utilities), 2022

*"The mixed culture composed of *Stenotrophomonas acidaminiphila* and *Ochrobactrum* at a 2:1 ratio was able to achieve 79.41% degradation of the total petroleum hydrocarbons after 5 days."*

Two types of microorganisms isolated from petroleum hydrocarbon pollutants: Degradation c... — PubMed (NCBI E-utilities), 2024

"After 5 days, the strain W02 exhibited the best degradation efficiency of C17, reaching 81.93%, whereas the lowest degradation efficiency for C21 (29.97%)."

Two types of microorganisms isolated from petroleum hydrocarbon pollutants: Degradation c... — PubMed Central (open access), 2024

48 h

Moderate · score 6.34 · 3 sources

"Under the optimized conditions, approximately 88% of DBP was degraded within 48 h and five metabolites were detected."

Isolation of Dibutyl Phthalate-Degrading Bacteria and Its Coculture with *Citrobacter freu*... — PubMed (NCBI E-utilities), 2022

"A lag phase in decolorization of up to 48 h of incubation was observed, which may be attributed to the delay in growth of a member of the consortium responsible for causing reduction of the chromophore group of the dye and thus the decolorization of the medium."

Genome analysis to decipher syntrophy in the bacterial consortium 'SCP' for azo dye d... — PubMed Central (open access), 2021

"In both cases, irradiated cells were serially diluted (10-fold) in normal saline (0.90% NaCl) and plated on trypticase soy agar (TSA) by the spread plate technique and incubated at 30 °C for 48 h in the dark to obtain viable cells."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

36 h

Low · score 3.19 · 4 sources

"The preparation was incubated at room temperature (28 ± 2 °C) on shaker incubator (Gallenkamp, UK) agitating at 150 rpm for 36 h."

Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized me... — PubMed Central (open access), 2022

"S. maltophilia H3-1 biodegraded 93.3% of alpha-CBT-diol (300 mg/L) within 36 h when grown under optimized culture conditions, including a temperature of 40 °C, pH of 8, 2 g/L maltose, and 2 g/L ammonium sulfate."

Bioconversion of Alpha-Cembratriene-4,6-diol into High-Value Compound Farnesal Through Em... — Europe PMC, 2025

"The study also selected K₂HPO₄/KH₂PO₄ (2:1) and 108 cfu/mL as most appropriate phosphate combination and inoculum size respectively for maximum release of protease within the fermentation time of 36 h."

Evaluation of the Effects of Nutritional and Environmental Parameters on Extracellular Pr... — OpenAlex, 2018

7 d

Low · score 2.67 · 3 sources

*"In 7 days, *Sten. acidaminiphila* biofilm culture efficiently degraded 71.1 ± 3.1% and 40.2 ± 2.4% of phenanthrene and pyrene, respectively, whereas 38.7 ± 2.5% of phenanthrene and 29.7 ± 1% of pyrene degradation was observed in planktonic culture."*

Characterization of *Stenotrophomonas acidaminiphila* NCW-702 biofilm for implication in th... — PubMed (NCBI E-utilities), 2014

"Then, the mixture-containing Erlenmeyer flask was incubated in a rotary shaker at 160 r.p.m. and 30 °C for 7 days."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed Central (open access), 2019

"Notably, alginate bead-encapsulated UB08 achieved 100% Pb removal within 2 days, significantly better than immobilization on water hyacinth (100% at 5 days) and ceramic rings (71.51% at 7 days)."

Scaling EPS yield and bio-carrier application of $\text{Bacillus paralicheniformis}$/... — Europe PMC, 2026

Sources disagree: "5 d" (score 8.18) versus "48 h" (score 6.34). Both are shown; a reviewer should decide.

4 Colony morphology

low confidence

The colonies of strain BJ1 on LB plate were round with edge neat, uplifted surface, opaque and yellow in colour.

Low · score 0.95 · 1 source

"The colonies of strain BJ1 on LB plate were round with edge neat, uplifted surface, opaque and yellow in colour."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed Central (open access), 2019

For example, in the dilution of 10^{-6} , 65 to 57 colony forming units (CFUs) were observed in the entire sample, equivalent to 1.2×10^8 bacteria per gram of the soil.

Low · score 0.95 · 1 source

"For example, in the dilution of 10^{-6} , 65 to 57 colony forming units (CFUs) were observed in the entire sample, equivalent to 1.2×10^8 bacteria per gram of the soil."

Diuron degradation by bacteria from soil of sugarcane crops — PubMed Central (open access), 2017

5 Gram character

high confidence

Gram-negative

High · score 40.55 · 8 sources

"*Stenotrophomonas acidaminiphila*, the most recent reported species in genus *Stenotrophomonas*, is a relatively rare bacteria and is an aerobic, glucose non-fermentative, Gram-negative bacterium."

Genome-wide analysis reveals the emergence of multidrug resistant *Stenotrophomonas acidaminiphila* — PubMed (NCBI E-utilities), 2022

"*Stenotrophomonas acidaminiphila* is an aerobic, glucose non-fermentative, Gram-negative bacterium that been isolated from various environmental sources, particularly aquatic ecosystems."

Genome Sequencing and Comparative Analysis of *Stenotrophomonas acidaminiphila* Reveal Evolutionary Insights — PubMed (NCBI E-utilities), 2018

"Cells were gram-negative, motile, non-sporulating, straight to curved rods with a polar flagellum."

Stenotrophomonas acidaminiphila sp. nov., a strictly aerobic bacterium isolated from an u... — PubMed (NCBI E-utilities), 2002

Gram-positive

Low · score 4.12 · 4 sources

"A total of 400 bacteria were isolated, with 68% being Gram-positive and 32% Gram-negative."

Diuron degradation by bacteria from soil of sugarcane crops. — PubMed (NCBI E-utilities), 2017

"Of the 400 isolated strains, 68% were Gram-positive bacteria (GP) and 32% Gram-negative (GN) (Table 1)."

Diuron degradation by bacteria from soil of sugarcane crops — PubMed Central (open access), 2017

"Cultures that developed after inoculating vegetative cells were characterized by: (1) resistance to physical factors and sterilization procedures; (2) high antimicrobial activity with respect to some gram-positive and gram-negative bacteria; (3) resistance to polypeptide antibiotics; (4) the presence of an easily detaching S-layer on the cell surface; (5) the ability to secrete outer membrane vesicles into the intercellular space; and (6) formation of S-layer-derived tubular structures."

Cytophysiological Characteristics of the Vegetative and Dormant Cells of *Stenotrophomonas acidaminiphila* — OpenAlex, 2018

6 Biochemical tests for identification

high confidence

16S rRNA gene sequencing

High · score 32.62 · 7 sources

"The morphological, biochemical and genetic characteristics based on 16S rDNA sequence homology and phylogenetic analysis confirmed the isolate as *Stenotrophomonas acidaminiphila* strain JS-1."

Isolation and characterization of butachlor-catabolizing bacterial strain *Stenotrophomonas acidaminiphila* — PubMed (NCBI E-utilities), 2010

Whole-genome sequencing / ANI — reported positive

High · score 10.1 · 3 sources

"Whole genome sequencing (WGS) was used to identify all AR genes present in isolates."

Detection of Carbapenem-Resistant Bacteria in Skilled Nursing Facility Wastewater. — Europe PMC, 2026

MALDI-TOF MS

Moderate · score 6.54 · 3 sources

"A hybrid process for 2,4-dichlorophenoxy acetic acid herbicidal treatment and its microbial identification by MALDI-TOF mass spectrometry."

A hybrid process for 2,4-dichlorophenoxy acetic acid herbicidal treatment and its microbiological identification — PubMed (NCBI E-utilities), 2020

Indole

Moderate · score 5.28 · 4 sources

"The strain JS-1 in stationary phase of culture also produced 21.0 microg ml⁻¹ of growth hormone indole acetic acid (IAA) in the presence of 500 microg ml⁻¹ of tryptophan."

Isolation and characterization of butachlor-catabolizing bacterial strain *Stenotrophomonas acidaminiphila* — PubMed (NCBI E-utilities), 2010

Motility — reported negative

Moderate · score 5.11 · 4 sources

"Cells were gram-negative, motile, non-sporulating, straight to curved rods with a polar flagellum."

Stenotrophomonas acidaminiphila sp. nov., a strictly aerobic bacterium isolated from an u... — PubMed (NCBI E-utilities), 2002

- **Short-chain fatty acid profile (GLC)**

Low · score 2.43 · 3 sources

"Metabolites formed as a result of fipronil degradation were characterized with gas liquid chromatograph."

Degradation of fipronil by *Stenotrophomonas acidaminiphila* isolated from rhizospheric soi... — PubMed (NCBI E-utilities), 2016

- **Cellulose (CMC) hydrolysis**

Low · score 2.41 · 1 source

"This study investigates the isolation and characterization of novel lignocellulolytic bacterial strains capable of efficiently degrading paddy straw, thereby contributing to sustainable carbon management."

Bio decomposition of paddy straw waste using laccase producing novel soil bacterial isola... — Europe PMC, 2026

- **Antibiotic susceptibility profile**

Low · score 1.66 · 2 sources

"Antibiotic susceptibility and physiological characteristics were determined."

Stenotrophomonas acidaminiphila sp. nov., a strictly aerobic bacterium isolated from an u... — PubMed (NCBI E-utilities), 2002

- **Spore formation / stain — reported negative**

Low · score 1.62 · 2 sources

"Here, three Gram-stain negative, rod-shaped, non-spore-forming bacteria, designated as strains CPCC 101365T, CPCC 101269T, and CPCC 101426 were isolated from surface-sterilized medicinal plant roots of a mulberry plant in Chuxiong of the Yunnan Province, freshwater from Erhai Lake in the Yunnan Province, and sandy soils in the Badain Jaran desert in Inner Mongolia Autonomous Region, China, respectively."

Characterization of three *Stenotrophomonas* strains isolated from different ecosystems and... — OpenAlex, 2022

- **Catalase — reported positive**

Low · score 0.81 · 1 source

"Biochemically, the strain was negative for oxidase, urease, nitrate reduction, hydrolysis starch, citrate utilization test and was positive for catalase and gelatin hydrolysis."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed Central (open access), 2019

- **Citrate utilisation — reported positive**

Low · score 0.81 · 1 source

"Biochemically, the strain was negative for oxidase, urease, nitrate reduction, hydrolysis starch, citrate utilization test and was positive for catalase and gelatin hydrolysis."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed Central (open access), 2019

- **Urease — reported negative**

Low · score 0.81 · 1 source

"Biochemically, the strain was negative for oxidase, urease, nitrate reduction, hydrolysis starch, citrate utilization test and was positive for catalase and gelatin hydrolysis."

Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolate... — PubMed Central (open access), 2019

7 References

1. Bio decomposition of paddy straw waste using laccase producing novel soil bacterial isolates: An eco-friendly and sustainable approach. 2026
MED:42129442 doi:10.1038/s41598-026-50628-6 · via Europe PMC · supported: Biochemical tests for identification, Time required to grow, Optimum temperature for growth
2. Scaling EPS yield and bio-carrier application of *Bacillus paralicheniformis*; UB08 for rapid lead remediat 2026
MED:42626619 doi:10.7717/peerj.21647 · via Europe PMC · supported: Biochemical tests for identification, Media used, Optimum temperature for growth, Time required to grow
3. *Stenotrophomonas oleivorans* sp. nov., a polycyclic aromatic hydrocarbon-degrading bacterium isolate 2026
MED:42232900 doi:10.3389/fmicb.2026.1793198 · via Europe PMC · supported: Gram character, Biochemical tests for identification
4. Bioprospecting of Aerobic Bacteria with Proteolytic Potential Isolated from Animal and Water Sources in the Three Regions of Mainland Ecuador. 2026
MED:41898766 doi:10.3390/jms27062907 · via Europe PMC · supported: Optimum temperature for growth, Time required to grow
5. Detection of Carbapenem-Resistant Bacteria in Skilled Nursing Facility Wastewater. 2026
MED:41251486 doi:10.1093/infdis/jiaf534 · via Europe PMC · supported: Biochemical tests for identification
6. Detoxification of Ochratoxin A by *Weizmannia coagulans*; CGMCC 9951: Characterization, Mechanism, and Application in *Cornus officinalis*; Pulp. 2026
MED:42188597 doi:10.3390/toxins18050194 · via Europe PMC · supported: Optimum temperature for growth, Time required to grow
7. Genome-Guided Identification of an OTA-Degrading Amidohydrolase AMH2102 from *Acinetobacter kookii*; AK4 with Enhanced Soluble Expression in *Escherichia coli*. 2026
MED:41745767 doi:10.3390/toxins18020101 · via Europe PMC · supported: Time required to grow

8. Whole-genome sequencing-based resistome characterization and phenotypic assessment of antibiotic resistance in *Stenotrophomonas acidaminiphila* K2-T isolated through polyethylene enrichment
doi:10.1016/j.nexres.2026.102445 · via Crossref · supported: Biochemical tests for identification 2026
9. *Stenotrophomonas acidaminiphila*
wikipedia:58028077 · via Wikipedia · supported: Gram character, Biochemical tests for identification 2026
10. Bioconversion of Alpha-Cembratriene-4,6-diol into High-Value Compound Farnesal Through Employment of a Novel *Stenotrophomonas maltophilia* H3-1 Strain.
MED:40076316 doi:10.3390/molecules30051090 · via Europe PMC · supported: Biochemical tests for identification, Optimum temperature for growth, Time required to grow 2025
11. *Stenotrophomonas tuberculopleuritidis* sp. nov., a novel pathogenic *Stenotrophomonas* species isolated from tuberculous pleurisy patient
https://openalex.org/W4413133707 · via OpenAlex · supported: Biochemical tests for identification, Gram character 2025
12. Biodegradation of Microcystins by Aquatic Bacteria *Klebsiella* spp. Isolated from Lake Kasumigaura.
MED:40711157 doi:10.3390/toxins17070346 · via Europe PMC · supported: Biochemical tests for identification, Time required to grow 2025
13. Removal of Ibuprofen from Contaminated Water by Bioaugmentation with Novel Bacterial Strains Isolated from Sewage Sludge.
MED:40871431 doi:10.3390/microorganisms13081927 · via Europe PMC · supported: Time required to grow 2025
14. Removal of Ibuprofen from Contaminated Water by Bioaugmentation with Novel Bacterial Strains Isolated from Sewage Sludge
e21c09a26f63482daa46a52375701bc1 · via DOAJ · supported: Time required to grow 2025
15. Enhanced Biodegradation of Fluoranthene and Pyrene in Saline Condition Using Microbial Consortia
PPR:PPR944858 doi:10.21203/rs.3.rs-5400344/v1 · via Europe PMC · supported: Time required to grow 2024
16. Two types of microorganisms isolated from petroleum hydrocarbon pollutants: Degradation characteristics and metabolic pathways analysis of petroleum hydrocarbons
PMC11559972 · via PubMed Central (open access) · supported: Media used, Time required to grow 2024
17. Two types of microorganisms isolated from petroleum hydrocarbon pollutants: Degradation characteristics and metabolic pathways analysis of petroleum hydrocarbons.
MED:39535996 doi:10.1371/journal.pone.0312416 · via Europe PMC · supported: Time required to grow 2024
18. Bacterial screening in Indian coastal regions for efficient polypropylene microplastics biodegradation.
PMID:38296101 · via PubMed (NCBI E-utilities) · supported: Time required to grow 2024
19. Two types of microorganisms isolated from petroleum hydrocarbon pollutants: Degradation characteristics and metabolic pathways analysis of petroleum hydrocarbons.
PMID:39535996 · via PubMed (NCBI E-utilities) · supported: Time required to grow 2024
20. A novel pathogenic species of genus *Stenotrophomonas*: *Stenotrophomonas pigmentata* sp. nov
https://openalex.org/W4399355193 · via OpenAlex · supported: Gram character 2024
21. Overproduction of a thermo-stable halo-alkaline protease on agro-waste-based optimized medium through alternate combinatorial random mutagenesis of *Stenotrophomonas acidaminiphila*
PMC9189783 · via PubMed Central (open access) · supported: Media used, Time required to grow, Optimum temperature for growth 2022
22. Characterization of three *Stenotrophomonas* strains isolated from different ecosystems and proposal of *Stenotrophomonas mori* sp. nov. and *Stenotrophomonas lacuserhaii* sp. nov.
https://openalex.org/W4311505967 · via OpenAlex · supported: Gram character, Biochemical tests for identification 2022
23. A novel strain of *Stenotrophomonas acidaminiphila* produces thermostable alkaline peptidase on agro-industrial wastes: process optimization, kinetic modeling and scale-up.
PMID:35713813 · via PubMed (NCBI E-utilities) · supported: Media used, Time required to grow 2022
24. Isolation of Dibutyl Phthalate-Degrading Bacteria and Its Coculture with *Citrobacter freundii* CD-9 to Degrade Fenvalerate
PMID:35058397 · via PubMed (NCBI E-utilities) · supported: Optimum temperature for growth, Time required to grow 2022
25. Isolation of Dibutyl Phthalate-Degrading Bacteria and Its Coculture with *Citrobacter freundii* CD-9 to Degrade Fenvalerate.
MED:35058397 doi:10.4014/jmb.2110.10048 · via Europe PMC · supported: Optimum temperature for growth, Time required to grow 2022
26. A novel strain of *Stenotrophomonas acidaminiphila* produces thermostable alkaline peptidase on agro-industrial wastes: process optimization, kinetic modeling and scale-up.
MED:35713813 doi:10.1007/s00203-022-03010-9 · via Europe PMC · supported: Media used, Time required to grow 2022
27. Effects of Free or Immobilized Bacterium *Stenotrophomonas acidaminiphila* Y4B on Glyphosate Degradation Performance and Indigenous Microbial Community Structure.
PMID:36278819 · via PubMed (NCBI E-utilities) · supported: Time required to grow 2022
28. Genome-wide analysis reveals the emergence of multidrug resistant *Stenotrophomonas acidaminiphila* strain SINDORF isolated from a patient with sepsis.
PMID:36212813 · via PubMed (NCBI E-utilities) · supported: Gram character 2022
29. Genome-wide analysis reveals the emergence of multidrug resistant *Stenotrophomonas acidaminiphila* strain SINDOREI isolated from a patient with sepsis.
MED:36212813 doi:10.3389/fmicb.2022.989259 · via Europe PMC · supported: Gram character 2022
30. Genome-wide analysis reveals the emergence of multidrug resistant *Stenotrophomonas acidaminiphila* strain SINDORF isolated from a patient with sepsis
5db129607caa4630b6bba816858b7fa3 · via DOAJ · supported: Gram character 2022
31. Genome analysis to decipher syntrophy in the bacterial consortium 'SCP' for azo dye degradation
PMC8194134 · via PubMed Central (open access) · supported: Media used, Time required to grow 2021
32. Genome analysis to decipher syntrophy in the bacterial consortium 'SCP' for azo dye degradation.
PMID:34116639 · via PubMed (NCBI E-utilities) · supported: Media used 2021

33. Decolorization of Malachite green dye by *Stenotrophomonas maltophilia* a compost bacterium 2021
<https://openalex.org/W3164221151> · via OpenAlex · supported: Biochemical tests for identification
34. Genome analysis to decipher syntrophy in the bacterial consortium 'SCP' for azo dye degradation 2021
[4f2ba583b24a4a1b39528f3ce901430](https://openalex.org/4f2ba583b24a4a1b39528f3ce901430) · via DOAJ · supported: Media used
35. A hybrid process for 2,4-dichlorophenoxy acetic acid herbicidal treatment and its microbial identification by MALDI-TOF mass spectrometry. 2020
 PMID:30092741 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
36. The diversity of active microbial groups in an activated sludge process treating painting process wastewater 2020
[1db98abe7ad54f4db56a148a3b4b70e7](https://openalex.org/1db98abe7ad54f4db56a148a3b4b70e7) · via DOAJ · supported: Biochemical tests for identification, Gram character
37. Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolated from farmland soil 2019
 PMC6894561 · via PubMed Central (open access) · supported: Media used, Time required to grow, Colony morphology, Gram character, Biochemical tests for identification
38. Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolated from farmland soil. 2019
 PMID:31827822 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification, Optimum temperature for growth, Time required to grow
39. Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolated from farmland soil 2019
[doi:10.1098/rsos.190562](https://doi.org/10.1098/rsos.190562) · via Crossref · supported: Biochemical tests for identification, Optimum temperature for growth, Time required to grow
40. Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolated from farmland soil 2019
[fe2b7598f61c49208f27f1ab4afe9e6e](https://openalex.org/fe2b7598f61c49208f27f1ab4afe9e6e) · via DOAJ · supported: Biochemical tests for identification, Optimum temperature for growth, Time required to grow
41. Data from: Biotransformation of chlorothalonil by strain *Stenotrophomonas acidaminiphila* BJ1 isolated from farmland soil 2019
[zenodo:5003274](https://zenodo.org/record/5003274) · via Zenodo · supported: Biochemical tests for identification, Optimum temperature for growth, Time required to grow
42. Evaluation of the Effects of Nutritional and Environmental Parameters on Extracellular Protease Production by *Stenotrophomonas acidaminiphila* Strain BPE4 2018
<https://openalex.org/W2789527987> · via OpenAlex · supported: Media used, Gram character, Time required to grow, Optimum temperature for growth
43. Cytophysiological Characteristics of the Vegetative and Dormant Cells of *Stenotrophomonas* sp. Strain FM3, a Bacterium Isolated from the Skin of a *Xenopus laevis* Frog 2018
<https://openalex.org/W2805688521> · via OpenAlex · supported: Gram character
44. Genome Sequencing and Comparative Analysis of *Stenotrophomonas acidaminiphila* Reveal Evolutionary Insights Into Sulfamethoxazole Resistance. 2018
 PMID:29867899 · via PubMed (NCBI E-utilities) · supported: Gram character
45. Genome Sequencing and Comparative Analysis of *Stenotrophomonas acidaminiphila* Reveal Evolutionary Insights Into Sulfamethoxazole Resistance 2018
[e0ee9c9913194b7cb12cf07427a68836](https://openalex.org/e0ee9c9913194b7cb12cf07427a68836) · via DOAJ · supported: Gram character
46. Evaluation of the Effects of Nutritional and Environmental Parameters on Extracellular Protease Production by *Stenotrophomonas acidaminiphila* Strain BPE4 2018
[zenodo:3350229](https://zenodo.org/record/3350229) · via Zenodo · supported: Media used, Gram character, Time required to grow, Optimum temperature for growth
47. Diuron degradation by bacteria from soil of sugarcane crops 2017
 PMC5753625 · via PubMed Central (open access) · supported: Colony morphology, Gram character, Media used, Time required to grow
48. Diuron degradation by bacteria from soil of sugarcane crops. 2017
 PMID:29322098 · via PubMed (NCBI E-utilities) · supported: Gram character
49. Copper-tolerant rhizosphere bacteria-characterization and assessment of plant growth promoting factors. 2017
 PMID:28251535 · via PubMed (NCBI E-utilities) · supported: Media used, Biochemical tests for identification
50. *Stenotrophomonas bentonitica* sp. nov., isolated from bentonite formations 2017
<https://openalex.org/W2746049663> · via OpenAlex · supported: Gram character, Biochemical tests for identification
51. Diuron degradation by bacteria from soil of sugarcane crops 2017
[fa327d6f96094826a8418bbfe6bd48d8](https://openalex.org/fa327d6f96094826a8418bbfe6bd48d8) · via DOAJ · supported: Gram character
52. Degradation of fipronil by *Stenotrophomonas acidaminiphila* isolated from rhizospheric soil of *Zea mays*. 2016
 PMID:28330119 · via PubMed (NCBI E-utilities) · supported: Optimum temperature for growth, Biochemical tests for identification, Time required to grow
53. Degradation of fipronil by *Stenotrophomonas acidaminiphila* isolated from rhizospheric soil of *Zea mays* 2016
<https://openalex.org/W2256745426> · via OpenAlex · supported: Optimum temperature for growth, Biochemical tests for identification, Time required to grow
54. Characterization of cadmium-resistant bacteria and their potential for reducing accumulation of cadmium in rice grains. 2016
 PMID:27341110 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
55. Characterization of *Stenotrophomonas acidaminiphila* NCW-702 biofilm for implication in the degradation of polycyclic aromatic hydrocarbons. 2014
 PMID:25040365 · via PubMed (NCBI E-utilities) · supported: Time required to grow
56. *Stenotrophomonas daejeonensis* sp. nov., isolated from sewage. 2011
 PMID:20400671 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification
57. Isolation and characterization of butachlor-catabolizing bacterial strain *Stenotrophomonas acidaminiphila* JS-1 from soil and assessment of its biodegradation potential. 2010
 PMID:20477958 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification, Media used, Time required to grow
58. Isolation and characterization of butachlor-catabolizing bacterial strain *Stenotrophomonas acidaminiphila* JS-1 from soil and assessment of its biodegradation potential 2010
<https://openalex.org/W1715877437> · via OpenAlex · supported: Biochemical tests for identification, Media used, Time required to grow
59. *Stenotrophomonas acidaminiphila* sp. nov., a strictly aerobic bacterium isolated from an upflow anaerobic sludge blank (UASB) reactor. 2002
 PMID:11931169 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification

How these values were derived

Each candidate value was scored as the sum, over every supporting sentence, of the source tier weight multiplied by how squarely the sentence asserts the value and by a recency factor. Culture collections and nomenclatural authorities carry weight 5.0, peer-reviewed literature 3.0, preprints 1.5, and encyclopedic sources 1.0. Confidence is reported as high only where a curated source and at least two independent sources agree. Where a runner-up scored above 60 per cent of the leader, both are shown and the field is flagged as a conflict rather than resolved automatically.

This report aggregates published evidence; it does not replace Bergey's Manual, the Manual of Clinical Microbiology, or the product sheet supplied with the strain. Every field is unreviewed until a microbiologist signs it off.