

Request: Papers that discuss the isolation of microorganisms from high salt and/or acidic environments (extremophiles/acidophiles/halophiles), especially environments.

FRI response:

Many papers in the literature describe how extremophiles have been isolated and cultivated from various sources. Several reviews discussed isolation of organisms from cheese brines and other salty foods, while other papers discussed methods by which halophiles or acidophiles were isolated from the environment.

General reviews

- (Oren, 2012): This book chapter is specifically about strategies for the isolation and cultivation of halophilic microorganisms.
- (Vartoukian et al., 2010): This minireview focuses on strategies for culturing “unculturable” bacteria.
- (Alain and Querellou, 2009): This is a very basic, general, and older review about cultivating difficult to culture microorganisms such as extremophiles.
- (Pikuta et al., 2007): This is a general review discussing microbial extremophiles

Isolation of organisms from cheese

- (Geronikou et al., 2022): This research paper discusses the isolation of spoilage yeasts collected during various steps in the manufacturer of white-brined cheese.
- (Caridi, 2021): This research paper discusses the isolation and characterization of yeasts isolated from dairy products.
- (Gardini et al., 2006): This research paper mentions the isolation and characterization of yeasts isolated from Pecorino cheese.
- (Yildiz et al., 2021): This paper discusses the isolation and characterization of yeasts from a traditional Turkish cheese.

Isolation from other foods

- (Delali et al., 2021): This research paper describes the isolation and characterization of yeasts from kimchi.
- (Kanavouras et al., 2005): This research paper includes a description of how yeasts and molds were isolated from olive brine.
- (Mourad and Nour-Eddine, 2006): This research paper mentions the isolation of lactic acid bacteria and yeasts in naturally fermented olives.
- (Rahmani et al., 2022) This paper discusses the isolation and characterization of yeasts from milk kefir.
- (Perez et al., 2018): This paper discusses the isolation and characterization of organisms from salted and ripened anchovies.

Isolation from environmental and other sources

- (La Duc et al., 2007): This research paper discusses the isolation, cultivation, and characterization of “extremophiles” including halophiles from NASA clean rooms subjected to extreme conditions.
- (Gunde-Cimerman and Zalar, 2014): This review article includes a section about the isolation of fungi from salterns.
- (Haroon et al., 2021): This research paper mentions the isolation of salt-tolerant bacterial strains from a salt mine.
- (Tu et al., 2022): This paper discusses the cultivation and isolation of halophilic microorganisms from a salt mine’s brine.
- (Mormile et al., 2003): This research paper discusses the isolation and cultivation of halophilic bacteria retrieved from halite brine inclusions from a location in Death Valley, California.
- (Kumar et al., 2012): This research paper mentions how halophilic bacteria were isolated from “saline habitats” in India.
- (Rohban et al., 2009): This paper discusses the isolation of halophilic bacteria from a hypersaline lake.
- (Wen et al., 2009): This paper discusses the isolation and culture of halophilic microorganisms (archaea and bacteria) from salt ponds.
- (Ñancucheo et al., 2016): This research paper focuses specifically on solid and liquid media for isolating and cultivating acidophilic and acid-tolerant sulfate-reducing bacteria.
- (Cho et al., 2006): This research paper discusses the isolation and cultivation of acidophilic bacteria from soil.
- (Johnson et al., 2001): This research paper discusses the isolation and characterization of acidophilic bacteria in acidic drainage waters at an abandoned copper mine.
- (Cui and Dyll-Smith, 2021): This review discusses the cultivation of halophilic archaea.

Other

- (Fröhlich-Wyder et al., 2019): This is a general review about yeasts in cheese, but without any detailed information about their isolation/cultivation.
- (Dopson, 2016): This is a general review about acidophilic bacteria.

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