

Isolation of Soil Thiobacterii and Determination of Their Bio-Oxidation Activity

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Abstract : 36 strains of sulfur-oxidizing bacteria were isolated in Southern Kazakhstan soda-saline soils and identified. Screening of strains according bio-oxidation (destruction thiosulfate to sulfate) and enzymatic (Thiosulfate dehydrogenises and thiosulfate reductase) activity was conducted. There were selected modes of aeration and culture conditions (pH, temperature), which provide optimum harvest cells. These strains can be used in bio-melioration technology.

Keywords : elemental sulfur, oxidation activity, Thiobacilli, fertilizers, heterotrophic S-oxidizers

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