

1. Role of humic acids in the process of anaerobic methane oxidation in soil– supervisor: prof. M.Brzezińska

Due to the activity of methane (CH₄) oxidizing microorganisms, soil is an important sink of this greenhouse gas. The process occurs under both aerobic conditions (in the presence of molecular oxygen, O₂) and anaerobic conditions. Anaerobic oxidation of methane (AOM) has been identified for nitrates (NO₃⁻, NO₂⁻) and sulfates (SO₄²⁻) as alternative electron acceptors. Several studies indicate that humic acid may also be involved in the process, but this has not yet been confirmed experimentally.