



Interaction between C, N and S pools and tides in reclaimed soils (Technosols) from the region of Chukurovo mine, Bulgaria

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Reclaimed soils built in the vicinity of Chukurovo mine are characterized by dynamically changing chemical environment due to the biochemical oxidation of pyrite. Its uneven distribution in soils is a prerequisite for the emergence of macroareas with contrasting biochemical properties and increases the genetic heterogeneity of the studied soils. In these conditions, the interaction between pools and flows of C, N and S in the reclaimed lands is of great interest. To study these processes, we determined the ratios C: N and C: S as indices of mineralization of organic, nitrogen and sulfur compounds in reclaimed soils, the content of phyto- and bioavailable forms of the elements and biomass carbon. The results show that the high content of sulphides delays the humification and mineralization of organic matter through its depressing effect on microbial and plant communities.