

Highlights:

- Beach sand and surface water were analyzed for low-density microlitter particles
- Most beach-sand microlitter was not microplastic and included organic and inorganic particles
- Post-oxidation lake surface water microlitter had 29 to 47% non-plastic particles
- Lake Superior sand and water microplastic particles were mainly fibers
- Particle sizes limited PyGCMS; identifiable microplastics were polyethylene