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Metals in soils adjacent to avenues of highly dense traffic in São Paulo city, Brazil

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São Paulo is the largest city in Brazil with about 20 millions inhabitants in the metropolitan area, strong industrial activity and more than 9 million motor vehicles, which are responsible for increasing pollution in the region. Nevertheless, there is little information on metal contents in the metropolitan region soils. The presence of metal contaminants in the urban environment, particularly in urban soils, and the proximity to city inhabitants can cause harmful exposure to metals through inhalation, ingestion, and dermal contact. The present study aimed to determine Pb, Cu, Ni and Mo concentrations in soils along the most important traffic arteries of São Paulo city. These metals are usually associated with high traffic densities, originating from exhaust emissions, tire, braking, vehicle and engine wear, and/or the re-suspension of road dusts. Inductively Coupled Plasma Optical Emission Spectrometry (ICP OES) after ultrasound-assisted *acqua regia* leaching was employed as analytical technique. The concentration levels obtained ranged from 32 to 108 mg kg^{-1} for Pb and 39 to 260 mg kg^{-1} for Cu. These values exceeded international and São Paulo soil guiding target values, indicating a vehicular source. For Ni the levels ranged from 6 to 20 mg kg^{-1} and for Mo from 1 to 3 mg kg^{-1}, which are within the international and São Paulo reference values.