**Reviewer #3**

the work presents interesting results on estimation of the soil ingestion of selected children from e‒waste disassembly areas by collecting and analyzing selected tracer metals in matched samples of their consumed food, feces, and urine, as well as soil samples from their play areas.

I’d suggest some modifications to improve the paper. Please, see my suggestion below:

Point 1. Page 2, lines 76-78: You can remove this sentence: a class of elements in the human body that are not easily absorbed by the human gastrointestinal tract and are also difficult to be transformed into other substances it’s not necessary

Answer: Thanks for your advice, and this explanation has been removed from the manuscript, it is changed to “this method analyzes the concentration of tracer elements in the soil to which children are exposed, the children's intake of food, their excreted feces and urine, and the content of the tracer element in the children’s food, feces, and urine.”

Point 2. Page 3, lines 99-100:

please, add references for the following information

South China's economic conditions are better than in North China, but the environmental pollution is worse. The site we studied is an e‒waste dismantling area with severe soil pollution that is typical of e‒waste dismantling areas in South China.

Answer: Thanks for your advice, and we have added references to support this view, it is added “[30] Huang, W.L.; Shi, X.L.; Wu, K.S. Human Body Burden of Heavy Metals and Health Consequences of Pb Exposure in Guiyu, an E-Waste Recycling Town in China. International Journal of Environmental Research and Public Health, 2021, 18(23):12428. https://doi.org/10.3390/ijerph182312428”

And we changed content as “The e-waste dismantling area we studied is an E-Waste Recycling Town located in South China, where the possible human body burden and health consequences of heavy metals exposure have been reported [30].”

Point 3. Page 3, lines 116 and 120: Please, add technical details about:lyophilization of food samples.

Freeze-drying conditions of feces.

Answer: Thanks for your advice, we have added the specific parameters and modified them as follows:” When the collection was completed, the samples were taken back to the laboratory and stored first in the refrigerator (‒20°C). Then, the feces were freeze‒dried (under vacuum conditions, the vacuum freeze drier temperature is ‒40°C to ‒50°C for 48 h) after measuring the weight with a vacuum freeze dryer.”

Point 4. Page 3, lines 121-124:Please, add some information: How did you collect dust samples?How much soil (kg) did you collect for each sample? Was the soil quartered?

Answer: Thank you for your suggestion. We have added the content we did not mention in this part, but the soil was not quartered, so there is no supplement. Now the modification is as follows: “Collect dust indoors or outdoors by cleaning dust from areas such as tables and windowsills. And 20 g of soil and as much dust (5-20 g) as possible were collected during the sampling process.”

Point 5. Page 3, lines 131-151: Please, add some information:How many millilitres of HNO3, H2O2, HF, HClO4 did you use for the digestion procedures (food samples, faces samples, soil and dust samples)?

Please, use element symbols not the entire name in all the manuscript. Temperature of the heating plate for faces sample digestion. Specify the mixed standards and certified reference materials used for calculating accuracy of the digestion procedure.Which reference solutions were used to evaluate accuracy and precision of ICP-OES and ICP-MS analysis? Please, add the instrument model.

Answer: Thanks for your advice! In view of the imperfection of the method and the defects of expression, we have added and improved this part, and the modification is as follows: “Feces samples and food samples were pre-treated in the same way. Dried samples (1 g) were digested to evaporate at low temperatures of 55°C on a heating plate with 3 mL concentrated nitric acid, 3 mL hydrogen fluoride, and 1 mL perchloric acid (HNO3‒HF‒HClO4). The digestion process is repeated until the sample becomes sticky. Crushed Evaporated samples were microwaved with 2 mL concentrated nitric acid and 3 mL hydrogen peroxide (HNO3‒H2O2). Digestion was performed at 120°C for 5 min, then 160°C for 5 min, and finally 180°C for 15 min. The digested product was diluted to 30 ml with ultrapure water and then stored at 4°C. The supernatant was extracted and analyzed by High Resolution Inductively Coupled Plasma Mass Spectrometry (HR‒ICP‒MS, Nu Attom, England) to determine Mn, Al, Ba, Ti, Ce, V, Sc, and Y.

Urine samples (15 mL) were placed in a digestion tube and digested by microwaving with 2 mL of H2O2 and 3 mL of concentrated HNO3. The conditions of microwave digestion are the same as mentioned above. Finally, the digest was analyzed by HR‒ICP‒MS.

Dried soil and dust samples (0.5 g) were digested as same as feces and food samples on a heating plate by HNO3‒HF‒HClO4. And then samples were microwaved with HNO3‒H2O2. The supernatant was analyzed for Al, Ba, Mn, Ti, and V by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP‒OES, Spectra Arcos SOP, German) which is a method for atomic emission spectroscopy analysis using a light source that generates plasma discharge through high-frequency inductive coupling and by ICP‒MS for Ce, Sc, and Y. In addition, dried soil samples from living spaces (0.5 g) were digested with the same pre-treated and analyzed by ICP‒MS for Pb, As, Cr, Cu, Ni, Cd, and Zn. The standard curve of concentration was used to determine the sample concentration was established by heavy metal standard (all standards were from The Nonferrous Metals Society of China).”

Point 6. Lines 131-135: Please, modify as suggested

Crushed food samples (1 g) were microwaved with concentrated nitric acid and hydrogen peroxide (HNO3‒H2O2). The supernatant was extracted and analyzed by High Resolution Inductively Coupled Plasma Mass Spectrometry (HR‒ICP‒MS) to determine Mn, Al, Ba, Ti, Ce, V, Sc, and Y.

Lines 137-138: Please, modify as suggested

The supernatant was then extracted and analyzed by HR‒ICP‒MS to determine Mn, Al, Ba, Ti, Ce, V, Sc, and Y,

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Point 7. Please, add labels (a, b, c, etc.) in each figure and update the captions. Also in the supplementary. Please, check captions of figures S2 and 3 that are identical.

Answer: Thank you for your correction. We have added (a, b, c, ect) to Figure 1 and Figure S1,2,3,4. The title of Figure 1 has been changed to “Figure 1. Frequency distribution histogram and outlier box of soil ingestion rate (SIR) based on tracer Al(a), Ba(b), Ce(c), Mn(d), Sc(e), Ti(f), V(g), and Y(h).” The title of Figure S1 has been changed to “Fig. S1 Histogram and basic statistical parameters of investigated child population age (a), height (b), and weight (c)”. The title of Figure S2 has been changed to “Fig. S2 Histogram and basic statistical parameters of daily food ingestion (a) (g/d, ww) and feces (b) (g/d, dw) and urine (c) (mL/d) excretion for investigated child population.”. The title of Figure S3 has been changed to “Fig. S3 Frequency distribution histogram and outlier box (a) and Frequency distribution histogram and outlier box (b) of soil ingestion rate (SIR) based on Al”. The title of Figure S4 has been changed to “Fig. S4 Frequency distribution histogram and outlier box of soil ingestion rate (SIR) based on tracer Al(a), Ba(b), Ce(c), Mn(d), Sc(e), Ti(f), V(g), and Y(h) separately”.