Comment on soil-2021-138

Anonymous Referee #2

Referee comment on "Miniaturised visible and near-infrared spectrometers for assessing soil health indicators in mine site rehabilitation" by Zefang Shen et al., SOIL Discuss., https://doi.org/10.5194/soil-2021-138-RC2, 2022

The paper discusses about several statistical and machine learning algorithms for evaluation of the spectrometers and the model prediction accuracy. Many soil physical, chemical and biological properties are targeted. It would give a reference for further NIR application. The paper should be improved before publication. Some suggestions are listed below,

Please give details of the experimental design for spectroscopy measurement. How can you observe the data in Figure 2.

Please give algorithmic details of the involved methods

I do not think that 56 samples for modeling is enough. Please prove and validate it, or I am not convinced of the results.

The definition of Lin's concordance correlation is not given.

Analysis of prediction errors (like RMSE) are needed in results and discussions part.