Spectroscopy research has been widely applied to remote-sensing exploration and prospecting in recent years and their advantages are highlighted in places where field surveys are difficult to carry out.

The authors shared a spectral database based on the reflectance spectroscopy studies of LCT-, NYF-type pegmatites and host rocks from Austria, Ireland, Norway, Portugal, and Spain. Overall, the dataset is new and can be used to improve the quality of existing representative reflectance spectra. The structure of the data set is well-designed, and the interoperability of the spectral database with a GIS environment is friendly to the users.

However, some descriptions were not clear, and the statements of some important points were inadequate. A major revision is needed before publication.

1. The Python routine proposed in this paper extracts the central wavelength position and the depth of one main absorption feature based on the minimum channel of the observed feature, which may be coarse, since the bandpass of the FieldSpec 4 spectroradiometer is 10nm in SWIR range. A quadratic function fit method was proposed by Raymond Kokaly.

2. As mentioned in the paper, the spectral library contains the spectral mineralogy interpretation as possible, but the details of the technique used to do the spectral mineralogy interpretation are absent.

3. The authors wrote that "Our results show that the spectral mineralogy identified does not necessarily match the minerals identified by observation of hand specimens and optical microscopy. This is because some silicates do not present necessarily diagnostic absorption features (Spatz, 1997) or because the spectra are dominated by alteration minerals that are spectrally very active due to the presence of water/hydroxyl group and superimpose unaltered mineral domains (Line168)". But the pegmatite is highly heterogeneous, the alteration degree of hand specimens in the same pegmatite outcrop probably varies greatly depending on the sampling locations. If these data are used to train the algorithm model, it probably led to incorrect judgment. So, what measures have been taken to ensure the representativeness of the samples?

4. The aim and significance of this spectral database should be more rigorous in the part of introduction and conclusion. The paper mentioned that the database aims to develop tools for the identification of two chemical types of pegmatite (page1, line 25). However, the descriptions in the difference of mineral composition or spectral features in the two types of pegmatite cannot be found. Furthermore, in the conclusion section, it claimed that the spectra data allowed the evaluation of the potential for discriminating both NYF and LCT types with distinct genesis, mineralogy, structure, and host rocks (line 246). On the one hand, because of the signature of Fe^{2+} and OH^-, many kinds of minerals such as muscovite, chlorite, illite and montmorillonite could be identified by diagnostic features of spectral reflectance data. On the other hand, it's almost impossible to identify the different types of pegmatite through mineral identification. The database was valuable for industry users, but it is doubted that the aim to identify pegmatite could be achieved by analyzing the spectral features of minerals.