

Interactive comment on “Database of Petrophysical Properties of the Mid-German Crystalline High” by Sebastian Weinert et al.

Sebastian Weinert et al.

weinert@geo.tu-darmstadt.de

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Dear Referee,

I agree that the mineralogical and geochemical composition of igneous rocks is an important factor and supersedes the importance of stratigraphic age. Metadata of each samples carries both, information on their stratigraphic age (stratigraphic ID) but also their petrographic description (petrographic ID). The petrographic description, if applicable, was determined microscopically on thin sections but also macroscopically on hand pieces of the sampled locations. Data on petrology is described in Chapter 2.1.4, which was extended by the following sentence: “Petrography is either evaluated on thin sections (if applicable) or on fresh hand pieces”. Since the focus of the presented study

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is set on physical and not chemical properties, I am confident that the provided information on the rock’s petrology is sufficient to allow for the classification and interpretation of the physical properties presented. This is especially the case for regional scale studies as presented here, where we intend to define meaningful ranges of the different rock properties for various applications as e.g. geothermal resource assessment studies. Petrophysical properties are furthermore classified and analyzed based on the petrographic description. Table 3 gives average data based on rock type and Figure 4 provides correlations of classified samples. Preparing and analyzing thin sections of all 8,600 samples is both, very expensive and time consuming and can therefore not be included in the study presented. Some of the analyzed samples were furthermore taken from archives and hence, cannot be destroyed for thin section preparation or whole rock geochemistry. Nonetheless, for most of the presented sampling locations, whole rock geochemical analysis is in planning. Since (re-)sampling, sample preparation, measurements (x-ray fluorescence; ICP-MS analysis) and data evaluation is time consuming, additional geochemical information on the sampled outcrops also comprising data from literature references as e.g. Gard et al. (2019) can be added in a second version after publication of the petrophysical properties.

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