Data formats for UV-Vis spectra and particle/pore size distributions

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Our collaborative research center is specialized in the rigorous design of particulate products. This includes the formation of particle systems through synthesis, the separation, classification, and characterization of these systems, and the simulation and optimization of synthesis and chromatographic separation. In this context, we have identified a lack of standardized formats for interdisciplinary data and metadata exchange that could meet our needs. In particular, ultraviolet-visible (UV-Vis) spectra (reflectance and extinction) and particle- and pore-size distributions are the information that we generate and exchange frequently. In this contribution, we present two straightforward data format structures that we have developed to alleviate this situation.