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Raman Data Search and Storage (RDSS): a Java-based program for displaying and examining Raman spectra

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Abstract

The ability to display and inspect Raman spectra quickly and efficiently is a central part of the data analysis process in Raman spectroscopy. In this manuscript, we present Raman Data Search and Storage (RDSS), a Java-based program that provides a user-friendly interface for the display and examination of Raman spectra. The RDSS allows users to easily visualize and analyze their data, facilitating the identification of characteristic peaks and patterns. Additionally, RDSS offers advanced search capabilities, enabling users to efficiently search and retrieve specific spectra based on various parameters such as peak intensity or wavelength range. Overall, the RDSS program is a valuable tool for researchers in the field of Raman spectroscopy, enhancing efficiency and aiding in the interpretation of complex spectra. With its intuitive interface and powerful search features, RDSS streamlines the process of data exploration and comparison, saving researchers valuable time and effort. Whether studying minerals, natural pigments, or other geological samples, RDSS software provides a comprehensive solution for analyzing Raman spectra with precision and ease.

Keywords: Raman spectroscopy, Raman data search, minerals, database, Java, spectral analysis

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