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Temperature dependence of a zero bias anomaly in scanning tunnelling spectra of Sr(4)Ru(3)O(10)[1] BERNHARD NANSSEU, TATJANA NOVGORODOV, MICHAEL WAELSCH, JÜRGEN HAGER, University of Kassel, JIANDI ZHANG, Florida International University, Miami, R. MOORE, WARD PLUMMER, Oak Ridge National Laboratory, ZHIQIANG MAO, Tulane University, RENE MATZDORF, University of Kassel — We have studied a zero bias anomaly in scanning tunnelling spectra of layered ruthenate Sr(4)Ru(3)O(10). This material shows a dip-like feature in the dI/dV spectra, which has previously observed in the single-layer Sr(2)RuO(4) and double- layer Sr(3)Ru(2)O(7) ruthenates. We have studied in particular the temperature dependence of the zero bias anomaly, which is in all three materials different. The triple-layer material shows intergrowth of single and double layers, which have been identified by their spectroscopic fingerprint. Finally, we discuss different effects as possible explanations for the zero bias anomaly.

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