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Multiband behavior signature in Hf0.97V0.03B2 superconductor compound SERGIO RENOSTO, ORLANDO CIGARROA, Departamento de Materiais/EEL - Universidade de São Paulo, P.O. Box 116, Lorena - SP, Brasil, TED GRANT, Departament of Physics and Astronomy, University of California at Irvine, 92697, Irvine - CA, USA, CARLOS A. MOREIRA DOS SANTOS, Departamento de Materiais/EEL - Universidade de São Paulo, P.O. Box 116, Lorena - SP, Brasil, J. ALBINO AGUIAR, Departamento de Física, Universidade Federal de Pernambuco, Recife - PE, Brasil, ZACHARY FISK, Departament of Physics and Astronomy, University of California at Irvine, 92697, Irvine - CA, USA, A. JEFFERSON MACHADO, Departamento de Materiais/EEL - Universidade de São Paulo, P.O. Box 116, Lorena - SP, Brasil — Isostructural MgB2 compounds which crystallizes in AlB2 prototype structure have been received much attention due to its potential for exhibit multiband behavior. Although there are many MB2 compounds (M – refractory metal) superconductivity it is too hard of find in the MB2 compounds. However, previous studies have been shown that Zr1-xVxB2 exhibit superconducting behavior with signature of multiband. Within this context, in this work, we are showing preliminary results of the partial substitution of Hf for V in the Hf1-xVxB2 with bulk superconductivity. Hall effect, magnetization, specific heat and resistivity measurements strongly suggest that this new compound represents a new example of multiband behavior.

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