Abstract Submitted
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The bilayer ruthenate $Sr_3Ru_2O_6$ an hypothetical electrically anisotropic compound[1] PABLO DE LA MORA, SABINA RUIZ-CHAVARRIA, JUAN RAMIREZ, Facultad de Ciencias, OLIVER MARTINEZ, GUSTAVO TAVIZON, Facultad de Quimica, Universidad Nacional Autonoma de Mexico. Cd. Universitaria — The bilayer ruthenate $Sr_3Ru_2O_7$ depending on its preparation it can be ferromagnetic or paramagnetic. In this study the hypothetical compound; $Sr_3Ru_2O_6$ is studied with quantum-mechanical calculations using the WIEN2k package. This compound is obtained from $Sr_3Ru_2O_7$ by removing an oxygen atom, then the unit cell is relaxed both in its internal atom positions and the cell dimensions. Before relaxation $Sr_3Ru_2O_6$ is weakly ferromagnetic, while after relaxation it becomes strongly antiferromagnetic. The parent compound, $Sr_3Ru_2O_7$, is electrically anisotropic, conducting mainly in the ab plane and $Sr_3Ru_2O_6$ is much more anisotropic. The electronic structure and magnetic calculations will be presented

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Pablo de la Mora
Facultad de Ciencias, Universidad Nacional Autonoma de Mexico.
Cd. Universitaria

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