

Abstract Submitted
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Newton's Atom¹ ANDREA CHANEY, JAMES ESPINOSA, University of West Georgia, JAMES ESPINOSA, Texas Woman's University — At the turn of the twentieth century, physicists and chemists were developing atomic models. Some of the phenomena that they had to explain were the periodic table, the stability of the atom, and the emission spectra. Niels Bohr is known as making the first modern picture that accounted for these. Unknown to much of the physics community is the work of Walter Ritz. His model explained more emission spectra and predates Bohr's work. We will fit several spectra using Ritz's magnetic model for the atom. The problems of stability and chemical periodicity will be shown to be challenges that this model has difficulty solving, but we will present some potentially useful adaptations to the Ritzian atom that can account for them.

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