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Effects of ion trap electrode geometry on ion storage and extraction[1] JAMES COWART, JAMES GLEESON, ANTHONY CALAMAI, ADRIAN DAW, Appalachian State University Department of Physics and Astronomy — The ion trap laboratory at Appalachian State University is measuring rate coefficients and other fundamental atomic and molecular parameters for astronomy and astrophysics. To obtain more detailed information on the energy distribution of ions stored in an RF ion trap, a detailed model of the trap has been constructed using IDL and Simion 7.0. Effects of details of the trap electrode geometry on ion storage and the process for ion extraction and detection are presented.

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