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## A perspective on the contributions of Ronald C. Davidson to plasma physics JONATHAN S. WURTELE, UC Berkeley

Starting in the 1960s and continuing for half a century, Ronald C. Davidson made fundamental theoretical contributions to a wide range of areas of pure and applied plasma physics. Davidson was one of the founders of nonneutral plasma physics and a pioneer in developing and applying kinetic theory and nonlinear stability theorems to collective interaction processes and nonlinear dynamics of nonneutral plasmas and intense charged particle beams. His textbooks on nonneutral plasmas are the classic references for the field and educated generations of graduate students. Davidson was a strong advocate for applying the ideas of plasma theory to develop techniques that benefit other branches of science. For example, one of the major derivative fields enabled by nonneutral plasmas is the study of antimatter plasmas and the synthesis of antihydrogen. This talk will review a few highlights of Ronald Davidson's impact on plasma physics and related fields of science.