

Movers, Shakers, and Storsers of Charge: The Legacy of Ferroelectricians L. Eric Cross and Robert E. Newnham

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The last 100 years has seen the burgeoning of the field of ferroelectrics from a scientific curiosity to the basis of major industries in capacitors, piezoelectrics, and electro-optics. This paper will discuss the history of the field, with an emphasis on the contributions made by Professors Robert E. Newnham and L. Eric Cross of the Pennsylvania State University. Their scientific contributions encompassed many key areas in ferroelectrics, including phenomenology, structure determination, relaxor ferroelectrics, composite piezoelectrics, structure-property relations, and flexoelectricity. Scientific advances were often motivated by and closely coupled with application needs. Finally, their impact on global academic communities is discussed.