

Non-Destructive Evaluation of In-Process Measurement of Ceramics (NYSERDA 4972-IABR-IA-99) – This program was directed toward studying the feasibility of applying TransTech Systems’ innovative electrical impedance measuring techniques to the determination of density, moisture content and defect detection during the processing of raw and green ceramic materials. The technical results demonstrated a novel way in which the phase angle of the impedance can be used to determine the moisture content in the ceramic samples studied. When the program began, the rate of technical progress and market growth for advanced composite ceramics, used as the basis for this effort, were very optimistic. The potential market for the technology developed in this program was directed specifically at the advanced composite ceramic industry. With the disappointing advances in this industry, the market potential has not materialized. If there is a resurgence of the industry in the future, TransTech would be in a position to capitalize by determining customer-driven detailed product specifications in terms of ranges, accuracy, linearity, drift, sizes, power requirements, interface requirements and pricing.