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RESEARCH ABSTRACT FORM

TITLE: A Parametric Study on the Material Properties of a Shape Memory Polymer

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Characteristics of a Shape Memory Polymer (SMP) are examined during research where modulus of elasticity, stress, and strain are studied. SMP is a polymer that is characterized by its ability to change shape when heated to a certain temperature, and maintains the new shape after cooling. When reheated, it returns to its original shape. During testing, this material is housed inside of a heated box where the temperature is uniform at steady state where it is optimal to test the material. Strain measurements are taken during experimentation.