عنوان مقاله:

Control system design for compressibility test of semi-elastic materials

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Semi-elastic materials are very useful nowadays in human life. So, designing a control system for testing these materials has an increasing necessity, which makes a vital role for them in production of materials with optimum use. Producing such materials must be accompanied with exact tests based on experiments in standard laboratory condition. In this article, design and construction of a control system to perform several tests on semi-elastic materials especially flexible foams, in different lab criteria will be investigated. Conceptual design was carried out and elements were chosen, having both technical and economical considerations in mind. Then the selected parts were connected in an optimumarchitecture, containing 4 units: actuating, sensing, digital control and dual user interface. Modification and construction of the primary model was carried out later, and the final model was approved by accredited calibration laboratories. It was registered as an invention in Iran, and a commercial sample of that was introduced to .the market, named FOAM AZMA

کلمات کلیدی:

Control system, compressibility test, semi-elastic materials, experimental setup and elasticity characteristic