

*Large Elastic Deformations of Homogeneous Anisotropic Materials**

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1. Introduction. Using the natural state theory of elasticity, one can write down stress-strain relations valid for any perfectly elastic material which is initially homogeneous. Various equivalent forms of these relations, together with references as to their origin, are listed in a recent paper by Truesdell [1]. The problem of determining what restrictions are placed on these relations by symmetries which exist in materials is non-trivial and has been solved completely only for isotropic materials, though Birch [2] and Murnaghan [3] have deter-

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