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地应力对裂隙岩体渗流特性影响的研究

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收稿日期 2004-6-17 修回日期 2004-12-14 网络版发布日期 2007-2-14 接受日期 2004-6-17

摘要 岩体总是赋存于一定的渗流场与应力场中的, 研究地应力场对渗流场的影响具有重要的意义。首先分析了裂隙岩体渗流运动的基本规律, 研究了应力对渗流作用影响的机理。在此基础上, 结合甘肃某工程进行了现场地应力测量及高压压水试验, 并且作了大量地表的、钻井岩芯的节理裂隙地质调查, 得到了该地区的地应力值和渗透系数数值。然后通过回归分析, 可以发现该地区渗透系数随地应力值的增大呈负指数递减的变化规律。

关键词 [岩石力学](#); [地应力](#); [渗透系数](#); [高压压水试验](#); [渗流特性](#)

分类号

STUDY ON EFFECT OF GEOSTRESS ON PERMEABILITY OF FRACTURED ROCK MASS

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Abstract

Rock mass always exists in the fields of geostress and seepage, so it is important to study the effect of geostress on the permeability of rock mass. Firstly, the basic rule of seepage in fissured rock mass and the mechanism of the effect are studied. Then the in-situ geostress measurement and high water pressure test are made combining with an engineering project in Gansu Province. Investigations into joints on ground surface and in borehole are done; and the geostress and permeability coefficient of this area are obtained. By nonlinear regression analysis the change law is found that with the increase of geostress the permeability coefficient will decrease with negative exponential trend.

Key words [rock mechanics](#); [geostress](#); [permeability coefficient](#); [high water pressure test](#); [characteristics of seepage](#)

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