

## TABLE OF CONTENTS 目 录

### Calculating Gradient, Divergence, and Rotation under Orthogonal Curvilinear Coordinates (正交曲线坐标系下梯度、散度和旋度的一般计算方法)

Y. S. AN, W. B. LIU, H. R. YU, M. Y. TONG.....35

### Dynamic Characteristics of Fluid-Structure Interaction Vibration in Double Layer Pipe (双层复合管流固耦合振动的动力特性分析)

Y. ZHANG, J. LIU, S. L. HAN.....46

### Micro-Damage and Constitutive Relation Analysis of Particulate-Reinforced Composites (颗粒/纳米复合材料细观损伤及本构关系分析)

L. C. BIAN, J. B. WEI, J. PAN, H. C. ZHAO, J. JIN.....63

### The Nanosecond-Pulse Surface Dielectric Barrier Discharge Actuation and Its Applications in External Flow Control (表面介质阻挡纳秒脉冲放电及其外流控制研究进展)

G. Y. ZHAO, H. LIANG, Y. H. LI, J. MA, W. Z. HUA, M. H. HAN.....75