

Properties of Rocks and Soils

801013 WORK INPUT TO A GRANULAR MATERIAL. TECHNICAL NOTE

Houlsby, G T
Geotechnique, V29, N3, Sept 1979, P354-358

A new interpretation of the principle of effective stress is offered in terms of continuum mechanics. The principle of effective stress is seen as a principle of the independence of the mechanical work input to the soil skeleton and to the pore water fluid.

801014 SUGGESTED METHOD FOR SOIL SPECIMEN REMOULDING BY WET-RAINING

Chaney, R; Mullis, J P
Geotech Test J, V1, N2, June 1978, P107-108

801015 STUDY OF FISSURED STIFF CLAYS (IN FRENCH)

Perrot, A; Vigouroux, A
Bull Liaison Lab Ponts Chaussees, N102, July-Aug 1979, P104-105

Describes a core cutter for taking triaxial samples of 38mm diameter from stiff fissured clays. A method of studying fissuration by injection is also presented.

801016 HYDRAULIC AND MECHANICAL PROPERTIES OF UNSATURATED SOILS (IN FRENCH)

Andrej, S
Rev Fr Geotech, N2, Oct 1977, P49-78

801017 SOME PHYSICAL PROPERTIES OF WEATHERED SEDIMENTARY ROCKS IN THE MELBOURNE AREA

Moore, P J; Chandler, K R
Proc International Symposium on the Geotechnics of Structurally Complex Formations, Capri, 1977, Vol 1, P345-352

801018 TESTING OF SOME GEOTECHNICAL PROPERTIES OF BUDA MARL IN HUNGARY

Paal, T
Proc International Symposium on the Geotechnics of Structurally Complex Formations, Capri, 1977, Vol 1, P365-369

801019 CORRELATION BETWEEN MECHANICAL AND ACOUSTIC PROPERTIES OF FLYSCH SANDSTONES

Pininska, J
Proc International Symposium on the Geotechnics of Structurally Complex Formations, Capri, 1977, Vol 1, P387-394

801020 SOME CONSIDERATIONS ON INDEX PROPERTIES OF SOUTHERN ITALY SHALES

Rippe, F; Picarelli, L
Proc International Symposium on the Geotechnics of Structurally Complex Formations, Capri, 1977, Vol 1, P401-406

801021 ACOUSTIC NONDESTRUCTIVE TESTING INSTRUMENTATION FOR MINING RESEARCH

Thill, R E
Proc Spring Meeting, Society for Experimental Stress Analysis, Wichita, Kansas, 14-19 May 1978, P84-85

Describes the instrumentation used and reviews determinations performed by these instruments, which include: elastic wave velocities, dynamic elastic moduli, anisotropy, homogeneity, anela-

stic properties, crack or flaw detection, structural quality assessment, acoustic emission, acoustic index properties for rock classification, porosity, depth to bedrock, dip of strata.

801022 MOISTURE AND FROST-RELATED SOIL PROPERTIES. TRANSPORTATION RESEARCH RECORD 675

Washington, DC: National Academy of Sciences, Transportation Research Board, 1978, 43P

Comprises papers largely concerned with the investigation of soil properties related to potential behaviour in pavement subbases. Selected papers are abstracted in this issue.

Avail: TRB, NAS, 2101 Constitution Ave NW, Washington, DC 20418, USA

Texture, structure, composition and density

801023 ESTIMATING JOINT ROUGHNESS COEFFICIENTS

Tse, R; Cruden, D M
Int J Rock Mech Min Sci, V16, N5, Oct 1979, P303-307

Eight parameters that have been used to characterize numerically the roughness of surfaces have been measured on ten profiles typifying different joint roughness coefficients. Values of two of these parameters, the root mean square and the mean square of the first derivative of the profile, are strongly correlated with values of the joint roughness coefficient. Equations are developed which avoid the subjectivity of estimates of JRC by comparison with typical profiles. They will be useful checks on values of JRC estimated from profiles of rough surfaces.

801024 ACCURACY OF THE DENSITY SCOOP FOR UNIT WEIGHT DETERMINATIONS IN COHESIONLESS SOILS

Weiler, W A; Kulhavy, F H
Geotech Test J, V1, N4, Dec 1978, P234-236

801025 PHASE COMPOSITION MEASUREMENTS ON SOILS AT VERY HIGH WATER CONTENTS BY THE PULSED NUCLEAR MAGNETIC RESONANCE TECHNIQUE

Tice, A R; Burrous, C M; Anderson, D M
Transp Res Rec, N675, 1978, P11-14

Describes a simple, rapid method of determining the unfrozen water content of frozen soils.

801026 EVALUATION OF HYSTERESIS IN MERCURY INTRUSION POROSIMETRY BY SECOND-INTRUSION METHOD

Cebeci, O Z; Demirel, T; Lohnes, R A
Transp Res Rec, N675, 1978, P15-20

801027 KINDS OF STRUCTURALLY COMPLEX FORMATIONS AND APPROACH FOR VALUATION OF THEIR MECHANICAL BEHAVIOUR

Avramova-Tacheva, E; Manev, G
Proc International Symposium on the Geotechnics of Structurally Complex Formations, Capri, 1977, Vol 1, P19-27

Fracture processes

801028 MICROMECHANICS OF IMPACT FRACTURE OF ROCK

Grady, D E; Kipp, M E
Int J Rock Mech Min Sci, V16, N5, Oct 1979, P293-302

The work was undertaken to provide a better understanding of the mechanisms leading to rate-