

- 9 Correlation between the modulus of elasticity and a quality index based upon petrographic analyses for a suite of granite samples. Quality index equals % quartz + % feldspar + % micas + others/% altered mineral + % microfractures + % voids (after Mendes, Barros, and Rodrigues, 1966, Figure 5).
- 10 Relationship between grain size (decreasing to the right) and crushing strength in rock salt specimens (after Dreyer, 1966, Figure 3).
- 11 The interdependence between the strength (R_{c_s} in kg/cm^2) and void ratios of Polish air-dry limestones and marls (after Kowalski, 1966, Figure 1).
- 12 Stress-strain curves for Berea sandstone at different pore water pressures (kilobars) and strain rate of 1.7×10^{-4} /sec. Below: all at 2 kilobars confining pressure and 24° or 300°C ; all in compression except curve marked Ext (for extension). Above: at confining pressures (p_c) of 0.5, 1.0, and 2.0 kilobars at 24°C ; at pore pressures (p_p) of 0, 0.5, and 1.5 kilobars; all at same effective pressure of 0.5 kilobars (after Handin, et al., 1963, Figure 4).
- 13 Diagram of natural joint directions (solid line) and of fractures induced during laboratory loading (dashed line) of sandstone monoliths from the Podhale region of Poland (after Boretti-Onyszkiewicz, 1966, Figure 4).
- 14 Idealized geometric relationships between the principal stresses ($\sigma_1 > \sigma_2 > \sigma_3$, compressions positive) and the extension (A) and shear fractures (B and C). The senses of displacement are shown. Typical angle between the shears B and C is about 60° in rocks.
- 15 Idealized sketch of five fracture patterns found superposed on the Teton anticline, Montana. Pattern 1 is the dominant pattern; sketch grossly distorts prevalence of patterns 2, 3, 4 and 5 (after D. W. Stearns, personal communication, 1964).
- 16 Mohr envelopes for intact cores of medium-grained quartz monzonite and for sliding along natural open fractures inclined at 28° to axial load. Angle ϕ is the friction angle. Specimens with natural fracture are loaded until slip occurs on fracture surface. Each stage in this loading is at a given confining pressure. The second and third stages are at successively higher confining pressures on same specimen. Stage four is obtained by reloading after unloading from stage three (after Lane and Heck, 1964, Figure 8).