

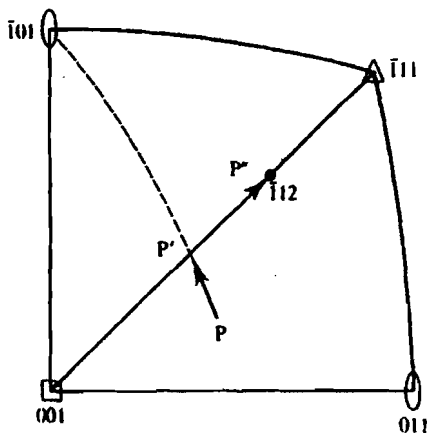
This test is for foreign students only !!

Examination 20.12.2001

NO LITERATURE ALLOWED !

Answer only in five questions of your choice!!

1. Compare the effects of ordinary strain hardening and strain-rate -dependent flow strength (in superplastic deformation !) on the plastic working (deformation) of metals.
2. Elastic moduli. Definitions, determination, and use.
3. Explain the following figure:



4. Discuss the effect of frequency on the cyclic behavior of viscoelastic materials.
5. Explain the background of strengthening and discuss the different methods, how strengthening can be accomplished.
6. The effects of strain rate and temperature on the strength of metals.
7. Effects of grain size on the mechanical properties of metals (discuss all possible properties, where grain size has an effect, and try also to explain, why and how).

