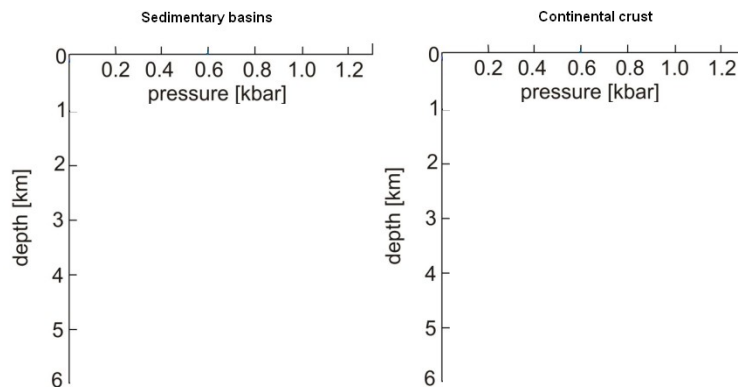


Fluid phases in the Earth's crust - resit - memory minutes

1. Name the 6 most important components and the 4 most important constituents.
2. Name 2 constituents, which can exist everywhere in the Earth's crust without miscibility gap.
Choose from the answers you gave in 1.
3. Characterize and distinguish "fluid" and "melt", with dimensions and magnitudes.
4. What is tortuosity?
5. Explain the terms "disperse" and "focused" fluid flow with a sketch.
6. Draw a P-T-diagram for the system H₂O, with the invariant point, 3 univariant equilibria and the critical point. Draw an isochore for supercritical and supercritical density.
7. Sketch truthfully the hydrostatic & lithostatic gradients for sedimentary basins and continental lithosphere. Where do we have the information from?
(10Points)



8. System H₂O + 5wt% NaCl.
Which pressure exists at 250°C & a depth of 5km (choose correct **isobar** or **isochore** [don't remember])?
What happens, when you go along the **isobar** in direction decreasing pressure at standard pressure (when you reach the Temp.-axis)?
What happens at room temperature [e.g. phase separation]?
(15Points)

