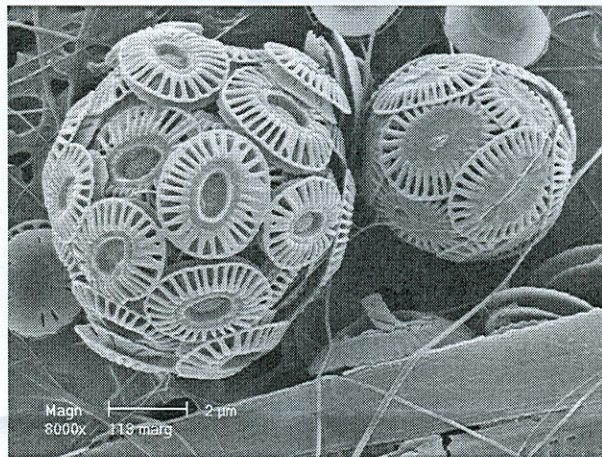


Petroleum Geology ta3450
Written Examination, February 2, 2005

Prof. Dr. Stefan M. Luthi

The following questions should be answered as concisely as possible (conciseness counts towards the final score!). Please mention your name and student number at the top of each sheet.

1. The figure below shows the calcareous algae *Emiliana Huxleyi* as seen by a scanning electron microscope. Assuming that the CO₂ concentration in the atmosphere will increase by 50% over the next 50 years, what will the effects be on such lifeforms?



2. Show the migration of organic matter from the source rock to an anticlinal trap in a cross-section.
3. What are aromatics and what can they be used for?
4. You are on a flight from Amsterdam to Anchorage (Alaska). Over what oil provinces will you fly? Describe briefly their settings and name one or two fields if possible.
5. The figure below shows a structural cross-section across the South Mountain and Timber Canyon oil fields, Ventura County, California. Describe their trapping conditions and the relationship to faulting.

