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Education: Ph.D. (Stable isotope and metal biogeochemistry, diagenesis, anoxicity and sedimentary mineralizations) 2001, Cand. scient. (Anoxicity and biogeochemistry) 1996

Research areas:

My research project *Carboniferous-Permian carbonates in the Barents Sea – basin analysis and diagenesis* is carried out at the University of Tromsø (UiTø) and kindly financed by Statoil and UiTø. One of the main objects is the different biogeochemical processes that were present during deposition and diagenesis of the carbonate and siliciclastic sediments. In particular the processes that may preserve and increase the permeability and porosity of the potential carbonate reservoir rocks are investigated. Also hydrocarbon migration and the reactivity of hydrocarbons to result in dissolution and precipitation of the carbonate and sulfur-containing minerals are emphasized. All these features are investigated by advanced microscope methods such as cathodoluminescence (CL), ultra-violet light (UV) and scanning electron microscopy (SEM-EDX), and digital image analysis and measurements (DIAM).

Stable isotope biogeochemistry (C, O and S) of different compounds such as carbonates, metal sulfides, sulfates and elemental sulfur are used to evaluate seawater and pore-fluid compositions as well as anoxicity and different microbial processes. Complementary information is obtained from radiogenic isotopes of Sr. Isotopic compositions are achieved by both conventional and *in-situ* analysis with laser systems so the isotopes are linked directly to crystal morphologies. Also trace element analyses are carried out by electron microprobe and different kinds of chemical and physical analytical bulk methods.

Other fieldwork areas than Barents Sea are Spitsbergen, Persian Gulf, East Greenland and several parts of the Nordic countries.

My personal interests are running (shorter than a marathon), cross-country skiing, fly-fishing, fly-tying, and hiking together with Catrine in the Norwegian mountains (see the picture above).
