



Interpreting Greenland dark ice reflectance spectra

Jason Box (1), Marek Stibal (1), Karen Cameron (1), Johnny Ryan (2), Alun Hubbard (2), Alia Khan (3,4,5),
Noah Molotch (3,5)

(1) Geological Survey of Denmark and Greenland (GEUS), Copenhagen, Denmark (jeb@geus.dk), (2) Dept of Geography & Earth Science, Aberystwyth University, Wales, (3) Dept of Geography, University of Colorado, USA, (4) Civil, Environmental and Architectural Engineering, University of Colorado, USA, (5) Institute of Arctic and Alpine Research, University of Colorado, USA

As part of the Dark Snow Project (<http://darksnow.org>), field measurements of impurity rich ice and snow spectral reflectance were obtained during a Greenland ablation area field campaign 20 June through 11 August, 2014. Simultaneous airborne broadband albedo and photographic measurements were obtained from a UAV to upscale the measurements spatially. Field microbiology, chemical, and snow/ice physical property measurements were also obtained to relate the remotely sensed quantities to physical parameters. This presentation focuses on the physical properties and radiative forcing of the ice impurities. The field data are connected with satellite remote sensing from NASA's MODIS sensor.