

First results of electron microscopic individual particle analysis during Eyjafjallajökull dust fall

¹M. Ebert, ¹K. Kandler, ¹K. Lieke, ²A. Minikin, ¹D. Müller-Ebert, ²B. Weinzierl, ¹S. Weinbruch

¹ Institut of Applied Geoscience, Technische Universität Darmstadt, Germany

² Institut für Physik der Atmosphäre, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Oberpfaffenhofen, Germany

Umweltmineralogie

TU-Darmstadt



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Dry deposition samples (2.5 – 100 µm particle diameter), Darmstadt, Germany, 19th to 26th Apr. 2010

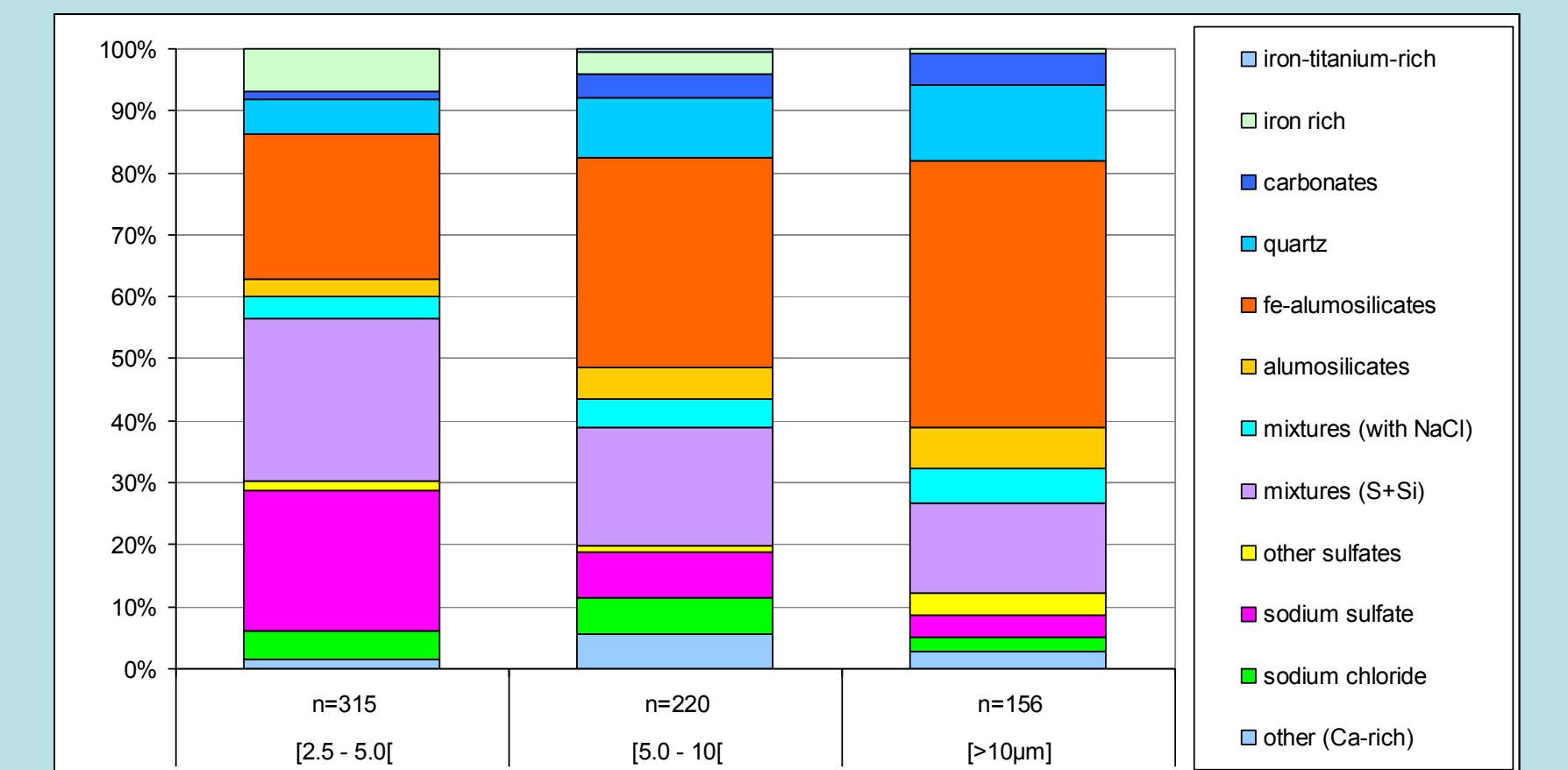
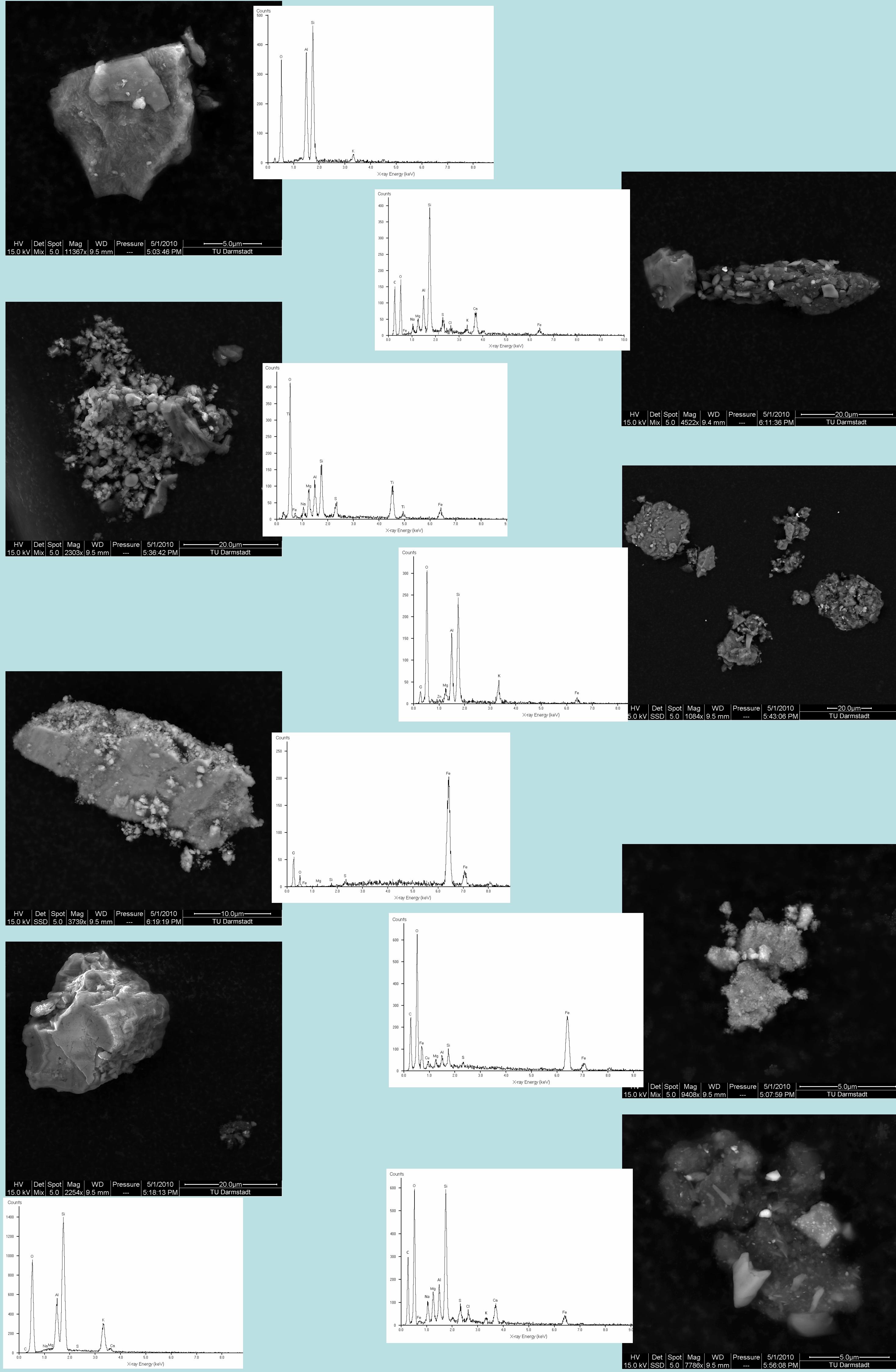


Fig. 1 Size-resolved chemical composition of dry deposition samples (2.5 – 100 µm) in Darmstadt, Germany, 19th to 26th April 2010

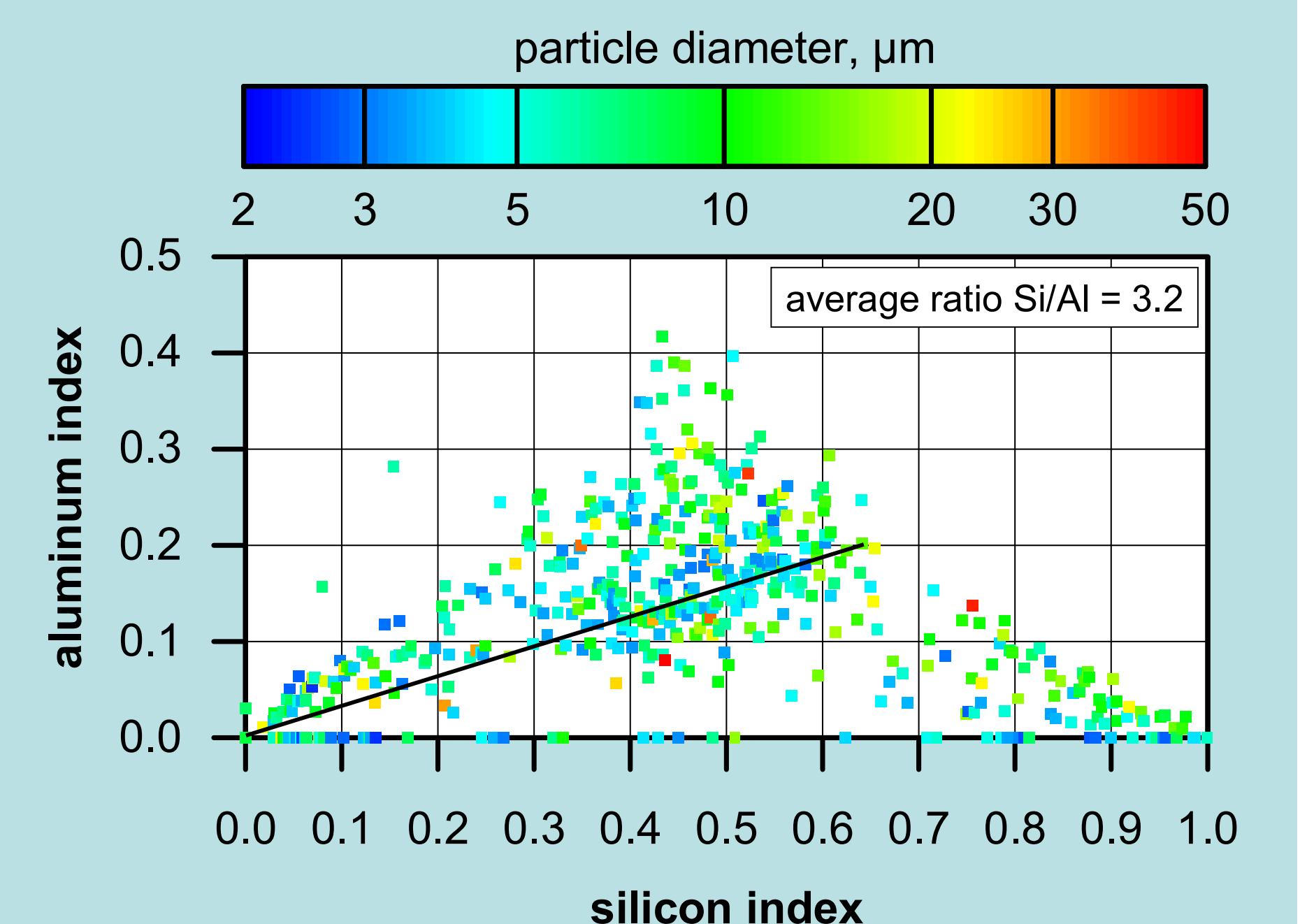


Fig. 2 Aluminum vs. silicon index for all particles; particle size is given by color; the average ratio is represented by the black line. Quartz grains are found in the lower right corner

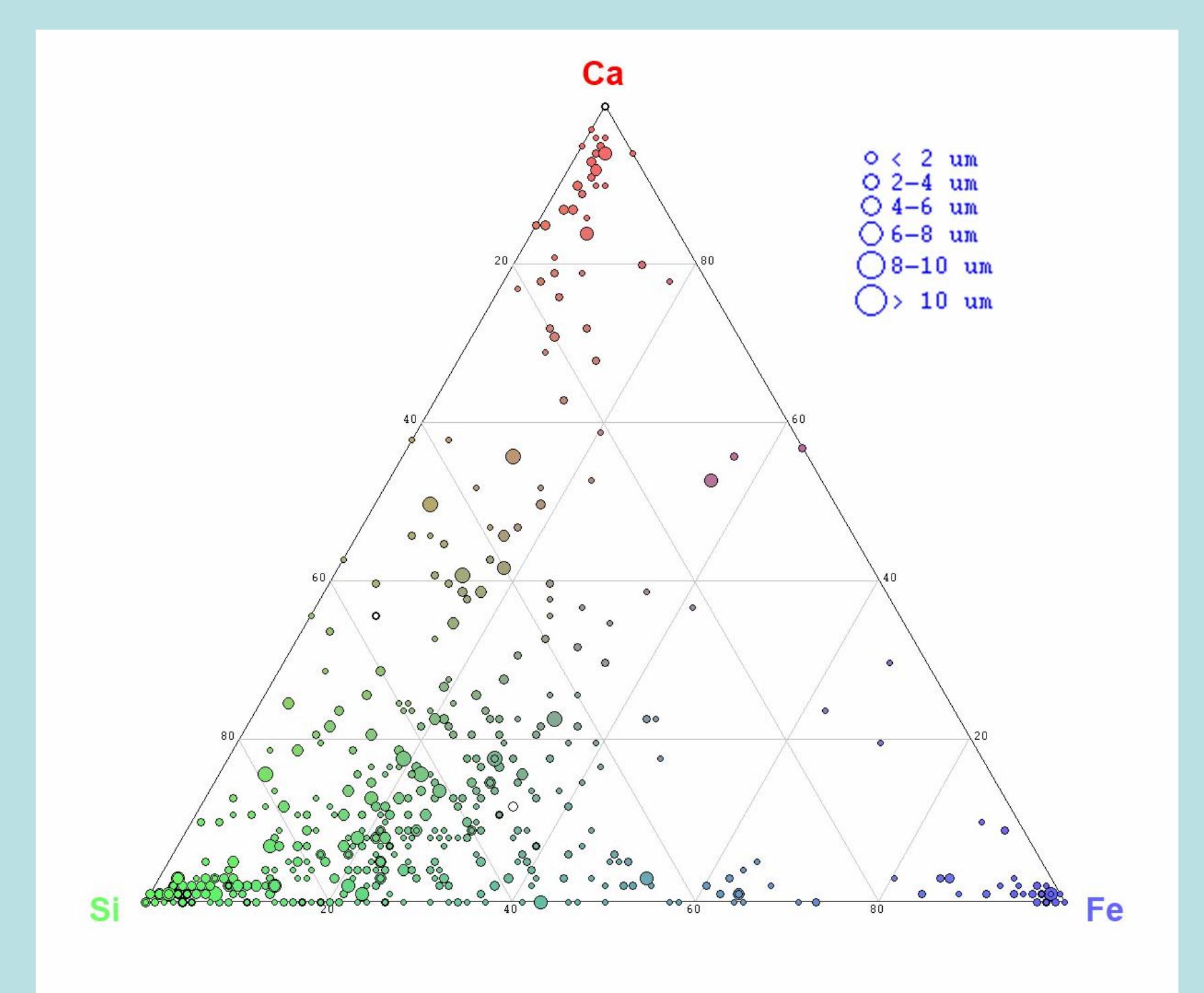
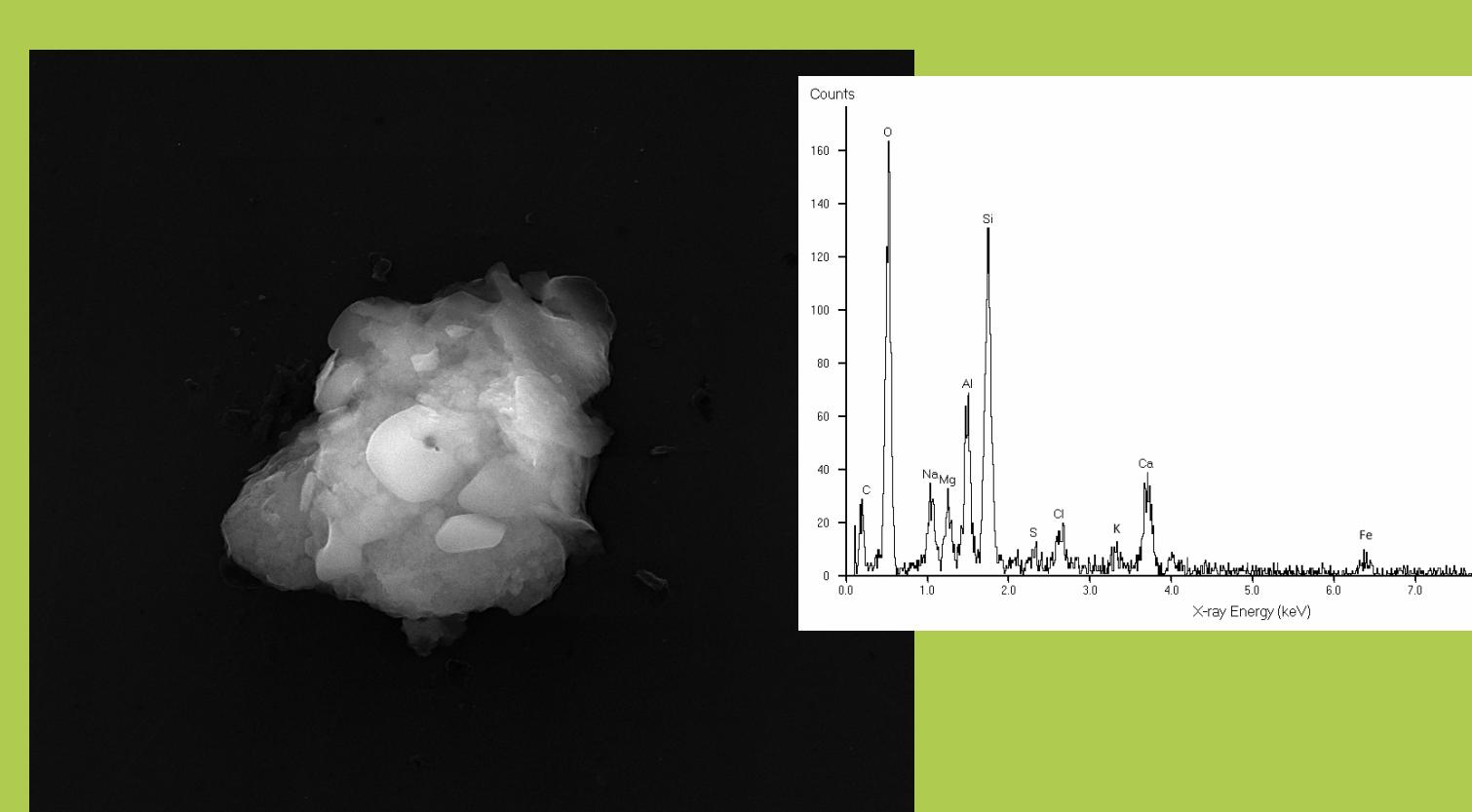
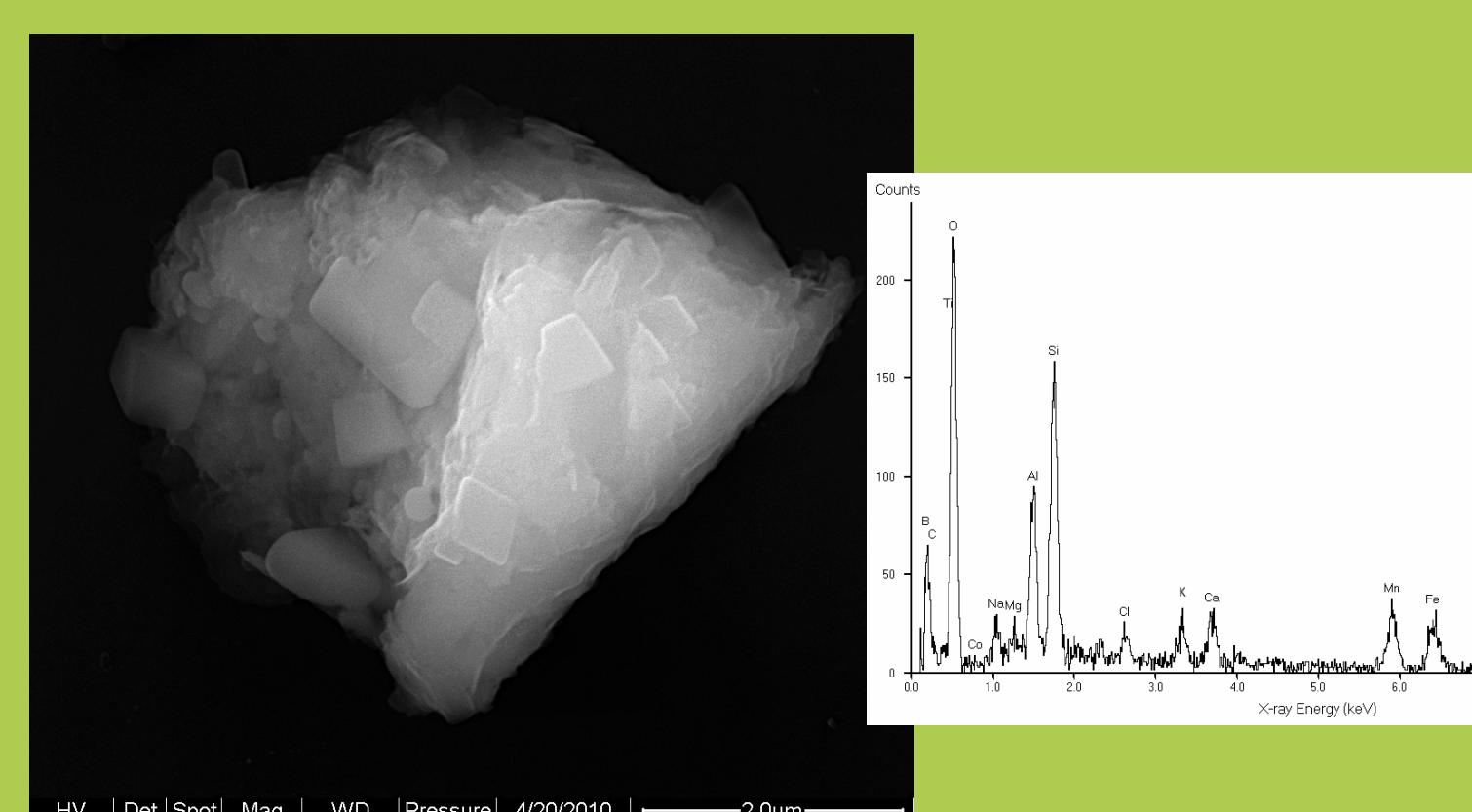
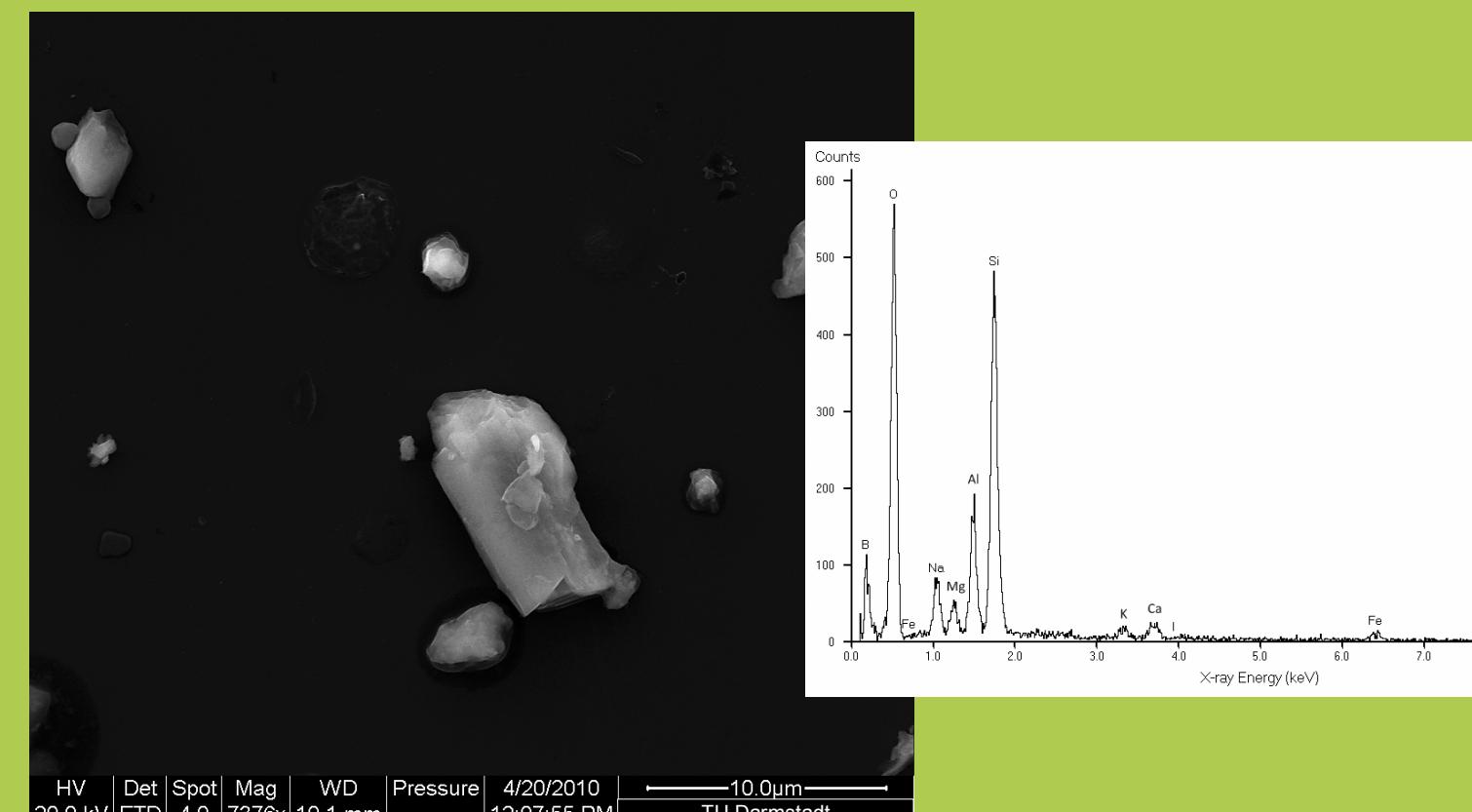
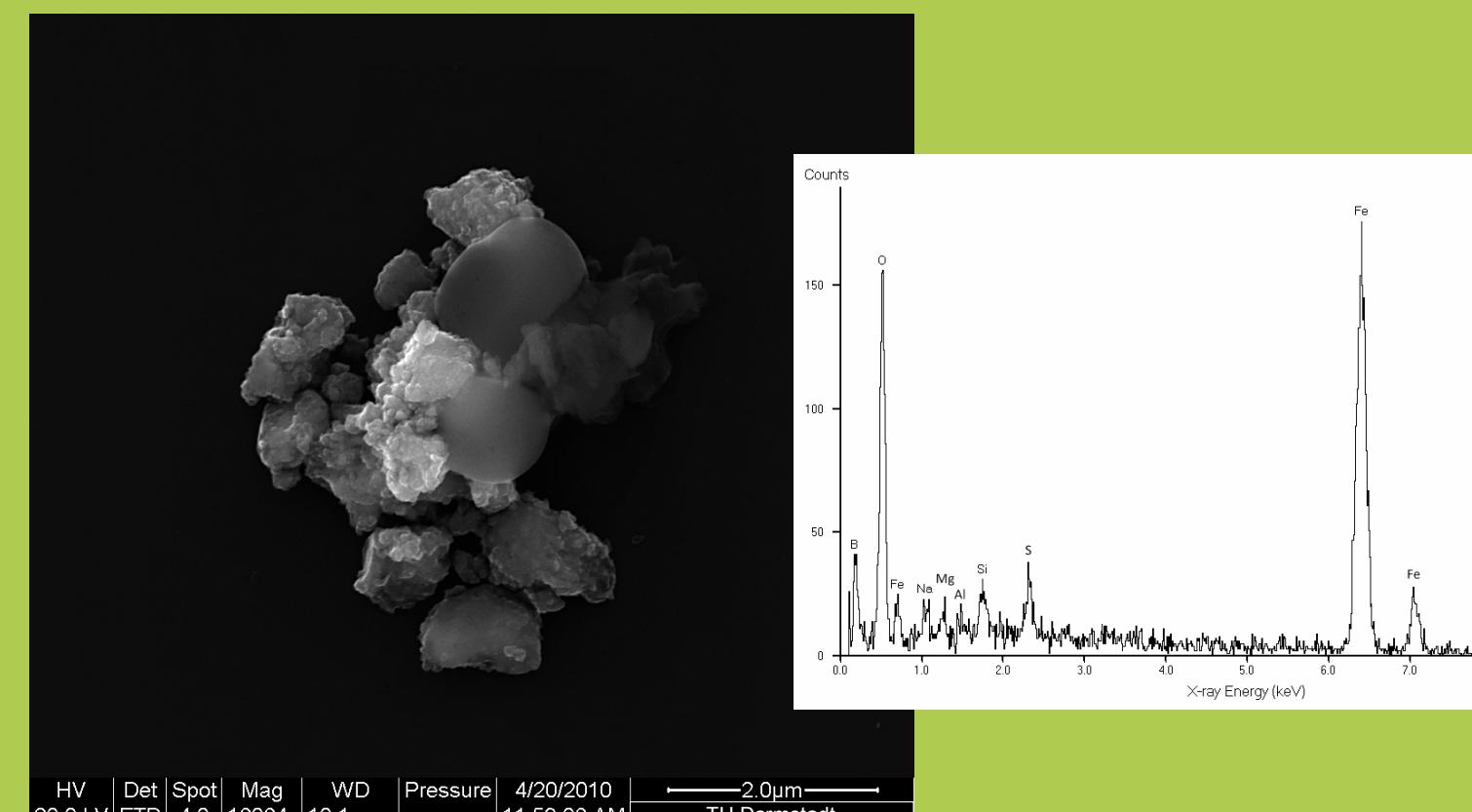


Fig. 3 Ternary diagram of silicon, iron and calcium content; particle size is represented by dot size (see scale)

Groundbased impactor (0.1 – 10 µm particle size) at Mt. Kleiner Feldberg (825m asl.), Germany



Aircraft impactor sampling (0.1 – 3 µm particle size) Falcon, 22.04

