



Detection of volcanic ash from the Eyjafjallajoekull eruption with a Raman lidar over Thessaloniki Greece

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The arrival of the volcanic ash plume of the Eyjafjallajökull eruption was observed over Greece almost one week after its major eruption (on April 14, 2010) with a Raman lidar system. Intensive lidar measurements were performed throughout the event in Thessaloniki to derive the optical properties of the ash aerosols in the troposphere. During April 21, 2010 two layers of volcanic ash were present over Thessaloniki, one around 2.5 and one around 5 km height after circulating over central Europe. The first layer was persistent but with variable thickness, while the thin layer observed at 5 km height disappeared after some hours. Later on and at higher altitudes thin layers of ash were observed between 5 and 8 km, directly associated with the volcanic eruption. The observed layer at around 3 km was persistently observed till April 28.