

Date: April. 11, 2016
To: "AMT" editorial@copernicus.org
Subject: Expert review

Title: About the effects of polarising optics on lidar signals and the $\Delta 90$ -calibration

Author(s): V. Freudenthaler

MS No.: amt-2015-338

MS Type: Research article

Iteration: Manuscript under review for journal Atmos. Meas. Tech.

Special Issue: EARLINET, the European Aerosol Research Lidar Network

Summary of Recommendations

My recommendation for this paper in its existing form is:

The manuscript is suitable for publication.

Detailed Comments:

The author of this paper consider a general model of the polarisation sensitivity of typical lidar systems and propose to use a $\Delta 90$ -calibration for decrease the error of a single $\pm 45^\circ$ calibration into insignificance.

Pro: The paper is certainly of interest. The material presented in the paper is original. The references used in the paper are well balanced with the subject discussed. The formulae presented in the paper are quite correct.

Contra: I had to make considerable efforts in order to concentrate on reading this article. You might think that expressing thoughts in simple language becomes an art. In General this is what is needed as the basis for writing this article. The last effort of will. As a result, 95 % of it is just good material should go in the trash, and the remaining 5% should be pleasing to the reader.

With best Regards, Good luck!