Atmospheric
Chemistry
and Physics
Discussions

Open Access

Interactive
Comment

Interactive comment on "Observations of relative humidity effects on aerosol light scattering in the Yangtze River Delta of China" *by* L. Zhang et al.

Anonymous Referee #2

Received and published: 30 March 2015

The contribution contains original measurements, taken in China.

I suggest minor revisons.

Abstract should contain the goal of the paper, the techniques used, and the main results. The techniques applied are missing.

Page 2856, line 20: larger than one, (greater is frequently used in the paper, but larger is appropriate)

Page 2858, line 9: So, you humidify the aerosol from very dry conditions to RH 40% (for neph #1) and than to the elevated RH (for neph #2)? Please clarify!

Page 2862, line 9: 20 to 1000 Mm-1 corresponds to 4-200 km visibility, and not to 0.1

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

to 23.7 km as in Fig 4b. Please clarify!

Page 2863, paragraph, line 3-16: What about the impact (changes)... when the particles are dried and when they get wet again, ... Does that not also influence the determination of the enhancement factor? Could be discussed?

Table 5 According to the old work of Haenel in the 1980ies and subsequent work, c and g is in the range from 0.4-0.9 and g from about 0.6-0.9. But you find c=1.000? and g below 0.3? Can you discuss that?

Furthermore, one can compute gamma from c and g (see Haenel, 1984), and he found values of gamma around 0.4, but you get rather low gammas below 0.2? How can one explain that?

Figure 1, I see a green star!

Figure 3, a (as very thin green line) and b in one plot may help, but separately ploted, Figure 3a makes no sense, can be skipped.

Figure 4 contains the essential results. This figure must be large! Is the information on wind useful? Otherwise leave out. And all periods which are discussed in more detailed should be highlighted in the plot (grey shading or so).

Figure 6: The found histogram (FoO) in (a) has no Gaussian shape, why do you then show, in addition, Gaussian curves?

_____

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 2853, 2015.