Dear reviewer,

We deeply appreciate your valuable comments and suggestions. We have carefully revised our previous manuscript in accordance with your comments and suggestions. A point-by-point response is given as follows.

Point 1:
The paper considers the choice of spectral intervals for satellite measurement of anthropogenic pollution of the surface layer of the atmosphere. On the basis of the radiation model developed earlier by the authors, contrasts of outgoing radiation, caused by the presence of various types of pollution, were calculated. Intervals that maximize these contrasts are selected. The results obtained can be used as an approximation to the optimal spectral measurement scheme. The results of the work can be useful in the development of equipment for satellite monitoring of pollution.

There are typos in the text, for example, in line 218 “moelcules” is printed instead of “molecules”. It is advisable to clarify in lines 256,257 the phrase “λ0 denotes the wavelength at which the spectral absorption coefficient is negligible, such as 0.55μm and 0.61μm”

The work may be published after minor modifications.

Response 1:
The corresponding corrections are made and highlighted in yellow according to the suggestion.

Special thanks to you for your meticulous reviewing.

Best regards.

Yours sincerely,

Xiaoyu He