# Detailed answers to all of the reviewers’ comments

**Response to Reviewer I:**

**Major corrections**

1. Material presented in sections at lines 212-230
(discussing luminescence of lanthanide(III) complexes in general), and
sections at lines 315-323 (describing Diabetes mellitus in general) is more appropriate for introductory part of the paper, and should be deleted from results and discussion. However, if this material is to be moved to Introduction, it should be thoroughly shortened and reformulated, to contain only most relevant parts.

**Response:** The materials present in sections at lines 212-230 and 315-323 have been deleted from the results and discussion section.It has been drastically shortened and only the most relevant part has been added in the introductory part.

1. Same information is given three times in text, at lines 185-186, 191-192 and 201-202. This should be concisely reformulated to avoid unnecessarily
repetition.**Response:** The information given in the lines 188-186,191-192 and 201-202 have been reformulated and the repetition has been avoided.
2. X-ray diffractogram together with Table VI should be moved to supplementary information, since no significant conclusions can be drawn from these results. The method/software used for indexing of diffraction peaks was not referenced properly. The derived unit cell is not consistent with proposed molecular formula, based on the fact that unit cell volume divided by 18-20A^3 should give the number of non-hydrogen atoms in the unit cell. This
number (75,5-68) is not an integer multiple of 28 (the number of
non-hydrogen atoms in the ligand molecule), which makes this unit cell
parameters and volume suspicious.

**Response**: Table V1 moved to the supplementary information and the indexing done using McMaille software.The discussion on X-ray diffractogram has been drastically reduced.Since no significant conclusions could be drawn from these data the discussions on unit cell volume and number of non-hydrogen atom in the unit cell have been moved from the text.

1. The sentence starting at line 303 “Hence it can be concluded…” should
be deleted, since by interpretation of powder XRD patterns of
Dy(III)-complex no conclusion about ligand crystallinity can be made. It
could possibly be concluded that complex is amorphous solid.
**Response**: The sentence starting at the 303 line has been restructured as suggested by the reviewer.
2. Introductory part is missing the elaboration why authors have chosen the
particular organic ligand for the synthesis of the complexes.

**Response**: Reason for choosing the organic ligand has been included in the introductory part.

**Minor Corrections**

1. IR and NMR spectra should be moved to the supplementary information.
Assignment of the signals for the NMR spectra should be added to the paper

**Response:** IR and NMR spectra was moved to the supplementary files and have given assignment of the signals to the NMR spectra.

1. Unit for molar conductivity should be corrected throughout text to S cm^2
mol^-1 or Ω^-1 cm^2 mol^-1.

 Units of molar conductivity has been corrected.

1. Line 143. Instead of cited reference 13, primary sources from the field of
IR spectroscopy should be cited.

**Response:** A suitable reference from the primary source for the far ir spectra was included.

1. Line 179. The term “crystal field” is not appropriate to use, since the
complexes are studied in solution, not crystal.
**Response**: The term crystal field was changed.
2. Tables VII and Table VIII have identical captions. Please give more specific
captions.In Figure 5. absorbance should be given without units (y axis label).
In Figure 6, label for y axis should be changed to “emission intensity,
a.u.”

**Response**: Table captions have been changed .The fig 5 and 6 have been modified as suggested by the reviewer.

 **Response to Reviewer J**

1. I can not see the connection between luminescence studies and biological activity studies.

**Response**: The luminescence studies of the synthesised lanthanide(III) complexes were performed with a view to ascertain their suitability for biological techniques like fluorescence imaging studies. As these compounds shown luminescence in the uv region the fluorescence imaging studies for these compounds were not possible. Moreover this is hoped as a modest attempt in this direction.

1. The characterization of ligand and complexes is to detail in part results
and discussion, it should be moved mostly in experimental parts.

**Response:** The characterization of ligand and complexes is explained in detail in the part results and discussion and moved mostly from the experimental section.