In general, I am happy with the adjustments made to the paper. The authors may still want to consider a number of issues, listed below, that require further clarification.

1. When I first read the manuscript I was quite surprised by the difference between the simulation and analytic estimates of the diffusion time, of about two orders of magnitude. From the revised manuscript, I understand that the major reason behind is the neglect of the electron-neutral collisions in the hybrid simulations (and related contribution to the conductance), with additional impact of numerical diffusion (p.2, L4–9). According to the Response to my comments (L79), including the ion term in the conductance estimate results in a diffusion time longer by 10-20%. Conversely, the electron contribution to the conductance (and diffusion time) is some 80-90%, i.e. by neglecting this contribution the diffusion time is 5 to 10 times shorter than its actual value. Therefore, considering the electron contribution would increase the simulation proxy of 1000 s (p.2, L2) to some 5000–10000 s, i.e., 1.5–3 h. This reduces the difference between the simulation and analytic result by one order of magnitude. While my expertise on simulations is limited and I cannot fully judge the importance of numerical diffusion, I find this smaller difference more reasonable. A more detailed discussion (e.g., in the Intro and/or in Section 2.2), perhaps including the quantitative aspect above, may help the reader to get the message better.

2. I would appreciate as well a more comprehensive discussion of the conductivity estimate (which controls, essentially, the diffusion time), including a comparison with the Earth case. This would cast the matter into a broader perspective and help pointing out the (different) parameter regime at Venus. In particular, the actual value of the conductivity is much higher than at the Earth, by about four orders of magnitude, which has to do, I guess, with the weaker magnetic field and higher neutral density. At the same time, the Pedersen conductance appears to be dominated by electrons, unlike at the Earth, where is dominated by ions, with important consequences, e.g. on the simulation results (as commented above).

3. The newly introduced para at p. 3, L9–18, is somewhat confuse:
3.1. First, I am not sure if the geometric aspect, emphasized there, is the key one for the diffusive process. I think the energetic aspect is at least as important, since diffusion takes time because energy is dissipated along the way (magnetic energy is converted to heat). In the extreme case where conductivity is (quasi)zero, magnetic field penetration is (quasi)instantaneous. I think the energetic aspect, not the geometric one, is the main reason behind using the Pedersen conductance to estimate the diffusion time. Energy dissipation is achieved by Pedersen current, while Hall current has no energetic effect.
3.2. Second, in order to clarify better the geometric aspect, the average orientation of the magnetic field in the (current carrying layer of the) ionosphere should be indicated. From the text, I infer that magnetic field is essentially included in the ionospheric plane (like at the Earth equator). Correct?

4. Height integration (point 5 of Section 2.2) and conductivity panel of Fig. 1: My guess is that most of the conductance (height integrated conductivity) is confined around the maximum at 140 km, perhaps within 20 to 40 km. Can you indicate what is the (percentagewise) contribution of this (current carrying) layer, and what of the rest? (including the altitude regions, low and high, subject to extrapolation)

5. Minors:
- p.2, L1: simulation *time* as
- L3: numerical diffusion superimposes the physical diffusion => numerical resistivity significantly exceeds physical resistivity (?)
- L9: the ICME => an ICME
- L16: linear to the => linear in the
- L17: the magnetic energy stored in => magnetic energy supplied to (?)
- L23: for the reason of => to infer
- L26: Delete ‘even’ and ‘during the solar minimum’.
- L30: Correct ‘down to 90 km’ (1000 km, according to p7, L7); by the Bepi => during the Bepi
- L33: problem into => problem to
- p.3, L9: There are three different kinds of conductivity in the plasma => In general, conductivity in a magnetized plasma is a tensor, whose components are
- p.4, L16–18 and caption of Fig. 1: Please refer also to ion-neutral collisions, as included in the revised manuscript.
- p.7, L5: in a variety => for a variety; exampl,e => example;
- L5–6: BepiColombo plans two Venus flyby maneuvers => two Venus flyby manoeuvres are planned for BepiColombo
- L6: Delete ‘to an altitude’.
- L8–9: How long does it take the flyby?
- Ack: Venur