**Response to Reviewer #A:**

**Comment 1.** Line 14, Before first abbreviation HETP, full name must be given.

**Reply 1. Thanks for your note. It was corrected in the revised manuscript according to your comment (page 1).**

**Comment 2.** Line 80, CO2, 2 should be written as subscript.

**Reply 2. Thanks. It was corrected in the revised manuscript based on your comment (page 3).**

**Comment 3.** Lines 234, 235, Properties $ρ\_{l} and ρ\_{w}$ must be detailed explain. Why the article $\left(\frac{ρ\_{l}}{ρ\_{w}}\right)^{0.5} $was introduced in expression for Y?

**Reply 4. According to your note, the properties** $ρ\_{l}$ **and** $ρ\_{w}$ **were explained in detail in the revised manuscript (page 10). This is also to notice that the term of  was introduced and used in the expression of Y due to omission of the operational liquid density effect. In other words, the aforementioned term was utilized in order to plot a GPDC in which the effect of specific operational liquid in the column is removed (GPSA engineering data book, 12th edition, 2004).**

**Comment 5.** Line 259, 327: Diameter of column was 39.5 mm, not 40 mm.

**Reply 5. Thanks for your comment. It was corrected in the revised manuscript according to your comment (pages 12, 15).**

**Response to Reviewer #B:**

**Comment 1.** Line 258, Figure 5, explanation of numbers and numbers in brackets needed.

**Reply 1. Thanks for your valuable comment. The figure was revised and the explanations were added (page 12).**

**Comment 2.** The title should be changed in order to match better to the content of the work. New title should be: "Pressure drop behavior and mass transfer properties of a high specific area random type packing in a narrow packed column"

**Reply 2. According to your comment the title was changed to "Pressure drop behavior and mass transfer properties of a high specific area random type packing in a narrow packed column" (page 1).**

**Comment 3.** Connection between pressure drop and Height Equivalent to a Theoretical Plate (HETP) must be explained.

**Reply 3. Thanks for your precise note. Actually there is no sensible relation between pressure drop and HETP and they are both used in the process of sizing/rating of a distillation column. Note that for sizing/rating of a distillation column using a specified packing, two main characteristics of the column should be determined. The diameter of the column is the first and the second one is the height of the packed bed. Sizing/rating of the diameter of the column is performed using the Generalized Pressure Drop Correlation (GPDC) chart which is commonly plotted using the results of pressure drop experiments. On the other hand, the determination of height of the bed is accomplished using the data of Height Equivalent to a Theoretical Plate (page 3).**

**Additional comments: Figure 2 was also revised and improved to a better quality.**