**Answers to the reviewers’ observations**

We are thanking to the reviewer for the comprehensive analysis of our work and their useful suggestions, which allowed improving the quality of the manuscript. All the corrections introduced in the new version of the manuscript are colored in blue.

i) **First,** **abstract and conclusion have to be written in accordance to the main part of the manuscript**.

 Indeed there was a lack of concordance between the values of some working parameters interval mentioned in the two sections. These were corrected and a new phrase was introduced in the abstract (page 1, rows 11 and 16-17).

**ii) The introduction should contain the main information about MMA, catalytic combustion, and it would be useful that authors give the information about light-off curves or conversion-reaction temperature graphs.**

We added three new paragraphs including: (i) the advantages of catalytic combustion as compared with thermal combustion (page 2, rows 5-8); (ii) the main characteristics of MMA, as specified in the Kirk-Othmer Encyclopedia (page 2, rows 9-12); (iii) the particularities of the light-off curves (page 2, rows 29-33; page 3, rows 1-6).

iii) **In experimental part, the data about: MMA, catalyst  characteristics (such as  producer, specific surface area, average pore diameter, etc. ),combustion reactor, on-line gas chromatograph (characteristics and full names of detectors), the check of consistency of experimental data, MMA conversion and catalytic activity test, should be given in order.**

We introduced a table where are specified the catalyst characteristics (Table 1). Also there were given the gas chromatograph characteristics as suggested. The succession of the presentations in the text is in accord with the order recommended.

**iv) The units and the symbols have to be same throughout the whole body of the manuscript.**

Indeed, there were some inconsistencies, which were eliminated.

**v)It is not appropriate to use italic for presentation of chemical equations and units (line 167).**

The equation and units were changed accordingly.

vi) **After all given equations in the manuscript the** **definition of parameters have to be given below (better than explanation at the end as nomenclature** ).

The significances of all the notations were given immediately after the equations where they were used.

vii) **Section Results and Discussion should be written more clearly specially when authors are using the equations taken from literature.**

We added supplementary explanations to the equations used in the named section (page 10, rows 22-27; page 11, rows 8-12);

**viii) In formulation of the kinetic model for MMA combustion, it would be very useful to give the set of elementary reaction steps together with expressions for rate constant that lead to kinetic  expression (in manuscript equations 2 and 3, line 186 and 187, respectively).**

We introduced the full development of the reaction rate expression (page 9, rows 1-25).

**ix) The list of used symbols needs careful examination and corrections in case that are not given after equations: (some examples are given below)
-av  specific gas-solid surface area that is used in line 207 should not be specific and besides, the unit is not appropriate;
-CA MMA bulk molar concentration;
-cp specific heat (small letter) ;
-R should be the notation for gas constant...**

The symbols were re-examined and their significances are given after equations, as suggested at point (vi). So, the ‘Nomenclature’ list was eliminated.

Regarding the significance of ‘av’ (appearing in eqs. 15 and 16), its value is reported to volume unit of catalyst bed.

x) **In the Instruction for Authors for the JSCS is given the recommendation that the words from manuscript title should not be chosen as Key words. So, the authors should take care about this fact.**

The list of keywords was reformulated according to the observation.

xi) There were added few newer references in the list of the manuscript. This involved some phrase reformulations in the introduction section (page 3, lines 27-29; page 4, lines 6-8 and 14-21).