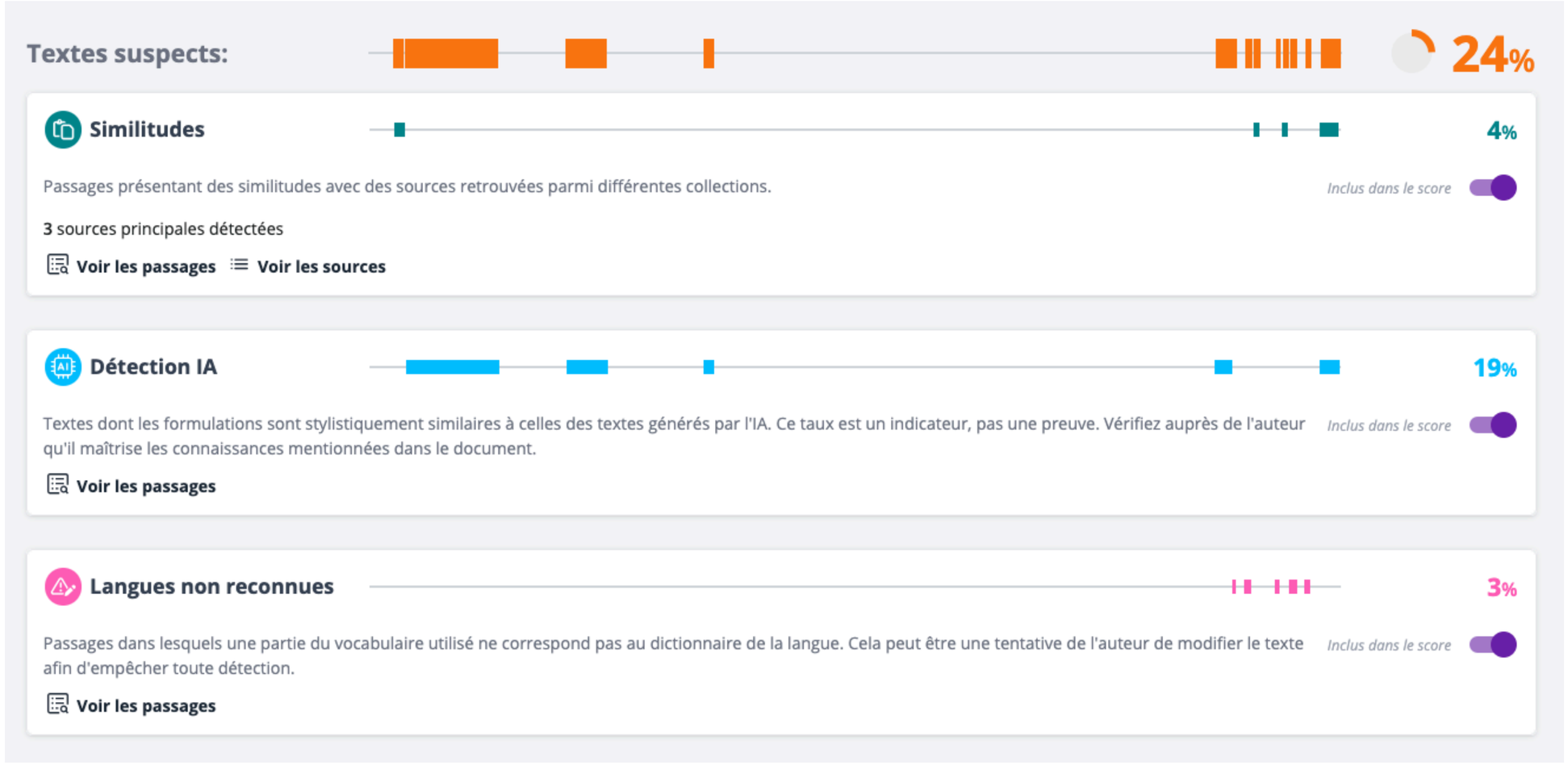
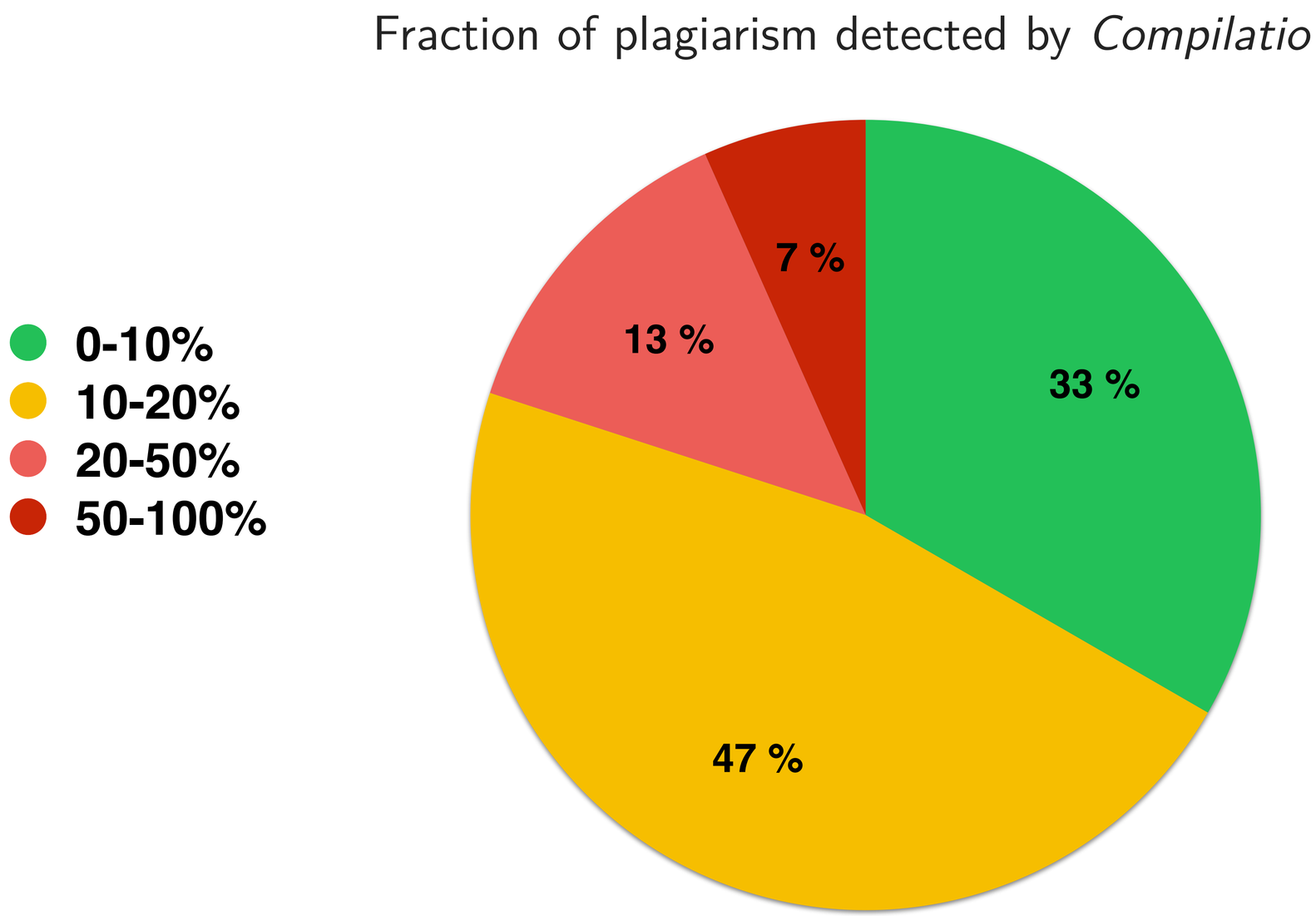
Your articles

Plagiarism and use of AI

This is what a screening by *Compilatio* reveals



Plagiarism and use of AI



Common issues

Make inspiring texts and provide clear outlooks at the end

Your reviews

1. Sophie AUGER

Abstract

Chemical communication is essential to the survival of insect, especially sex pheromone which initiate mating. Once released into the atmosphere by the females, these compounds must reach the males to trigger reproductive behavior. However, pheromones can interact with atmospheric components, such as aerosols, yet the underlying mechanisms are still poorly understood. Here, we built a new experimental system in order to study and control pheromone–aerosol interactions, and monitor the responses of live insects to these mixtures. We focus on the well-documented pheromone of the Bombyx mori moth, bombykol. This innovative apparatus enables the monitoring and variation of several atmospheric parameters, such as humidity, size distribution and number of aerosols, and bombykol concentration. The initial experiments have yielded encouraging results, particularly with regard to the quantification system. Investigating the transfer of pheromones between gas and particulate phases during their transport and perception is essential for advancing our understanding of atmospheric impacts on pheromones, insect adaptation, and the influence of pollution on insect communication.

Canonical abstract

1. Sophie AUGER

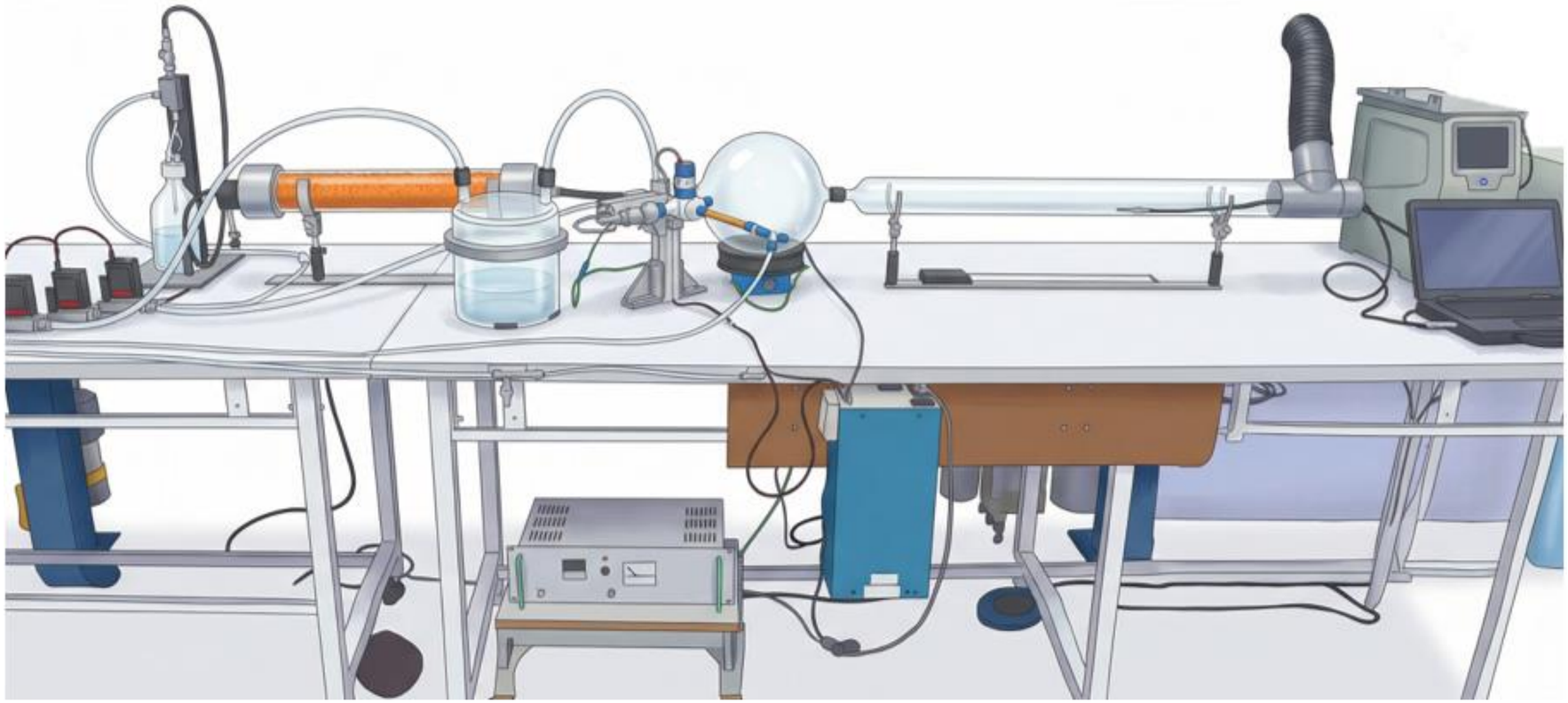


Figure 1. Illustration (generated by Illustrae.co AI) of the PheroTube

How to handle the source of the image ?

1. Sophie AUGER

Comments to the author Minor english correction are needed. The context, aim and results are very well presented but the title is not adapted as it suggests that you are presenting observed effects on insect behaviour when you do not have those results yet. Despite the potential of the apparatus, your article, as it is currently, lacks the experimental results that would lead to a publication.

Confidential comments to the editor

Your recommendation Reject and resubmit after major revision

Why reject this article if there are minor comments only ?

Abstract

An aerodynamic levitation setup was used to obtain glass and polycrystalline beads on a range of compositions across the solid solution $SrAl_2O_4$ - $BaAl_2O_4$ doped with 2%mol of europium and 1%mol of dysprosium. The method used proved to be uneffective to obtain a good (Sr,Ba)O/Al_2O_3 ratio for glass beads according to the electron probe microanalysis. Some of the crystalline beads on the other end present interesting optical properties such as transparency, translucency and a blue shift of the luminescence with added Ba content. For $BaAl_2O_4$ samples, a comparison of the heat treated glass bead structure and crystallized from the melt bead structure highlighted different phases apart from $BaAl_2O_4$ and their influence on luminescence wavelengths.

What would you like to change ?

2. Emma CASSOU

[1] Jian Xu and Setsuhisa Tanabe. “Persistent luminescence instead of phosphorescence: History, mechanism, and perspective”. In: *Journal of Luminescence* 205 (Jan. 1, 2019), pp. 581–620. ISSN: 0022-2313. DOI: 10.1016/j.jlumin.2018.09.047. URL: https://www.sciencedirect.com/science/article/pii/S002223131831562X (visited on 03/31/2026).

What can be discarded in this reference ?

but their direct transfer to sealing braids remains difficult. Most of them were developed for reinforcements later associated with a cured matrix. In an impregnated packing, the impregnation does not act as a structural cured matrix. A geometrical model alone is therefore not sufficient, because mechanical validation requires experimental data on force, compaction, lateral deformation and contact pressure.

Mechanical tests on impregnated braided structures or related three-dimensional braided architectures show that compression, cyclic loading and dynamic loading can provide useful quantities such as apparent stiffness, maximum stress, orientation sensitivity and energy absorption [20, 21, 22]. However, these studies do not directly address the free transverse compression of packing braids, where spreading of the contact area and radial bulge formation must be measured together.

This lack of experimental data limits the development of simplified mechanical models for sealing braids. The main problem addressed in this article is therefore focused on how can the transverse mechanical response of a flexible impregnated three-dimensional braided packing be measured in order to identify apparent homogenized properties and provide reference data for finite element validation.

To address this problem, this article proposes a free transverse compression test for a PTFE-impregnated three-dimensional braided packing. The test measures the global compaction response, the spreading of the compressed contact face and the radial expansion of the braid through lateral bulge formation to support the identification of apparent macroscopic mechanical properties under transverse loading.

Methodology

Experimental principle

In service, the gland follower applies an axial load to the packing rings. This load compresses the braid, promotes radial expansion toward the shaft and the housing, and generates sealing contact pressure.

The full stuffing-box configuration was not reproduced. Instead, a free transverse compression test was used to isolate braid compaction and lateral spreading. The sample was compressed along Z, while the radial direction r remained unconstrained.

The coordinate frame is shown in Figure 1. The Z direction corresponds to compression, r to radial spreading and θ to the circumferential direction of the packing. At the scale of the tested representative length, this cylindrical frame was treated as equivalent to a local orthogonal frame.

Sample and test configuration

The tested material was a LATTY 4788 braided packing made of aramid yarns and impregnated with PTFE. The braid had a three-dimensional diagonal architecture, described as a three-path diagonal braiding pattern.

The nominal section was assumed to be square. The initial width in the radial direction is denoted by w_0, and the initial height in the compression direction by h_0. For all calculations,

$$w_0 = h_0 = 10 \text{ mm}.$$

Only the central length L_c was compressed by the upper and lower punches. This length defined the experimental representative volume. The remaining lengths on both sides were left uncompressed to reduce cut-edge effects. Table 1 gives the main test parameters.

Table 1: Main sample and test parameters.

Parameter	Value
Initial width AND height	$w_0 = h_0 = 10$ mm
Compressed length	$L_c = 45$ mm
Non-compressed length	60 mm on each side
Maximum displacement	$\delta_{\max} = h_0/2 = 5$ mm
Compression speed	0.1 mm.min^{-1}

The samples were considered new. After manufacturing, the braid was dried and treated with paraffin oil to reduce friction during the first hours of use.

Figure 1 shows the experimental setup.

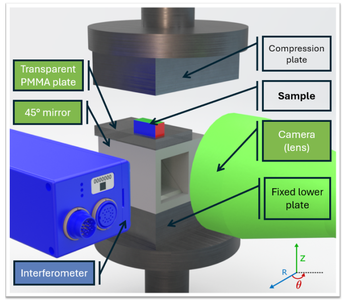


Figure 1: Experimental setup used for the free transverse compression test. The sample is compressed along Z. The lateral surface, normal to r, is measured by three-dimensional profilometry. The lower compressed face, normal to $-Z$, is instrumented with Fujifilm Prescale film placed on a transparent PMMA plate and observed through a 45° mirror.

Think of the referee. What would you change ?

7. Konstantinos LAMPROU

Hypersonic free-flight experiments using a dual optical system for improved vehicle's aerodynamic characterization

Konstantinos Theodoros Lamprou
von Karman Institute for Fluid Dynamics, Aeronautics and Aerospace Department

What is missing here ?

8. Victor LAPOINTE

Synthesis and seperation of α-GalNAc-O-Thr (Tn antigen) to α-TalNAc-O-Thr compound using the azidonitration reaction route

Anonymous Author

Laboratoire de Chimies des Glucides et Peptides, University of Orleans, 5 rue de Carbone, 45100 Orleans, France.

For truly anonymous review, hide tha affiliation as well

8. Victor LAPOINTE

Confidential comments to the editor The article is a well-intentioned student-level contribution with clear scientific value as a methods assessment study. The main concern is a mismatch between the title's promise (dual optical system, improved characterization) and the actual outcome (only single-view results usable, pitching moment largely unresolvable). The author should be encouraged to either revise the scope of the title/abstract to match the actual results, or to complete the top-view analysis before submission. Additionally, the editor may wish to verify the originality of section II.f, which stylistically stands apart from the rest of the manuscript.

The review is thorough and very helpful

9. Yves-Marie MAGAT

NLRP6 promotes inflammation through the caspase3/gasdermin E pathway in BLM-induced pulmonary fibrosis in mice.

Authors: Yves-Marie Magat[1], Léa Clément[1], Dorian De Moura Rodrigues[1], Ana Kujavec[1], Sandra Carignon[1], Marc Le Bert[1], Aurélie Gombault[1], Remo Castro Russo[3], Bernhard Ryffel[1], Valérie Quesniaux[1], Nicolas Riteau[1,2], Isabelle Couillin[1]

What are the criteria for the order of the authors ?

9. Yves-Marie MAGAT

mice were purchased

saline alone was given

The cell pellet was suspended

The tissues were ground

Heart were perfused

left lung were stored

mice were euthanized

The first fraction was centrifuged

9. Yves-Marie MAGAT

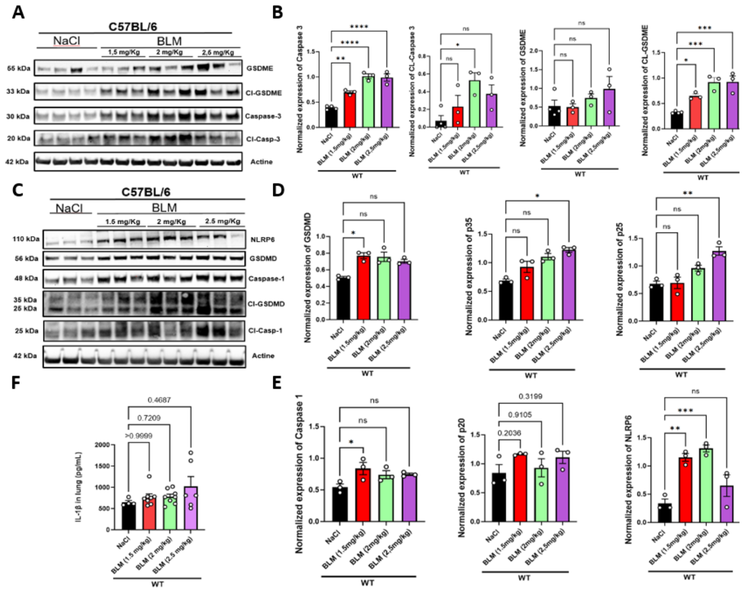


Figure N°1: Bleomycin administration triggers NLRP6 and pyroptotic pathways in a dose dependent manner.

C57BL/6 WT mice were treated with saline (NaCl 0, 9%) or bleomycin (BLM) solution and sacrificed at 14 days. (A) Western Blot analysis shows the impact of each dose of BLM (1,5/2/2,5 mg/kg) on Casp-3/GSDME expression (B) Normalized expression of Casp-3, Cl-Casp-3, GSDME and Cl-GSDME after BLM administration. (C) Western Blot analysis shows the impact of each dose of BLM (1,5/2/2,5 mg/kg) on Casp-1/GSDMD expression. (D) Normalized expression of GSDMD and cl-GSDMD form (p35/p25) after BLM administration. (E) Normalized expression of Casp-1, Cl-Casp-1 (p20) and NLRP6 after BLM administration. (F) Concentration of IL-1β (pg/mL) in lung after BLM administration. Data are shown as mean ± SEM, ns = non-significant, *p <0.05; **p <0.01; ***p <0.001.

Check that nothing exceeds the border frame

9. Yves-Marie MAGAT

Results The results are presented clearly and in a logical sequence. The identification of two specific injection timing regions associated with backfire is the main finding of the study and is well supported by the intake manifold pressure measurements and valve timing analysis. The figures are of good quality, and help illustrate the observed behavior effectively, and the discussion remains consistent with the experimental observations and previous literature.

It is good to highlight the strengths. However, the priority should go to the points that can be improved

10. Saad MAHMOOD

1 Introduction

Transportation is essential for connecting people, but it also produces greenhouse gases. In January 2025, the World Meteorological Organization (WMO) announced that 2023-2025 were the three warmest years ever documented worldwide [1]. Therefore, it became necessary for the global community to implement prompt actions aimed at decreasing greenhouse gas emissions from transportation to avert extreme weather events. In response, Europe has set a goal to reduce emissions by 55% by 2030 and to reach climate neutrality by 2050[2]. Achieving these goals requires a significant reduction in the transport sector's dependence on fossil fuels, along with the promotion of low-carbon and renewable energy sources, including electrification and hydrogen technologies. [3]. Among various options, hydrogen internal combustion engines have gained attention because they can help achieve zero CO_2 emission targets due to the carbon-free nature of hydrogen fuel. Additionally, the existing engine infrastructure requires only minor modifications to operate on hydrogen, enabling a smoother transition from conventional fuels [4].

For shuch a concise article,

be more to the point

5 Acknowledgement

The authors would like to express their sincere gratitude to the PRISME Laboratory and Université d' Orléans for providing the facilities and research environment necessary to carry out this work. The authors also acknowledge the support and guidance provided by the research supervisors and colleagues involved in this study.

One usually does not than its team or laboratory

11. Alfredo MARIANACCI

Laser-Induced Fluorescence spectroscopy on atomic and singly ionized iodine in radiofrequency plasma discharges

Propose a better title

11. Alfredo MARIANACCI

In this work, a LIF saturation spectroscopy technique, previously applied under similar experimental conditions [13], is implemented to resolve the hyperfine structure of the $5d^5D_4^\circ \rightarrow 6p^5P_3$ transition at 696.070 nm. This hyperfine splitting was previously investigated by Lazo in [6] using intermodulated LIF spectroscopy. The objective of the present study is both to compare the performance of this Doppler-free technique and to establish a methodology for the future determination of the hyperfine splitting of the $5d^5D_3^\circ \rightarrow 6p^5P_3$ transition at 681.445 nm. The saturation spectroscopy setup is shown in Figure 18. The laser beam is split by a beam splitter into a 30% probe beam and a 70% pump (or saturation) beam, which are superimposed inside the cell. The intensity of the probe beam is modulated using a chopper, while the fluorescence emitted at 90° with respect to the cell axis is detected and monitored at the chopping frequency. The pump beam saturates the observed transition and is additionally focused to increase the power density. As a result, the probe-beam lineshape exhibits Lambda-dips at the positions of the hyperfine transitions. By subtracting the saturated spectrum from the unsaturated one, the Lambda-dips can be isolated, as shown in Figure 19. The signal obtained using only the probe beam is shown in light grey, whereas the saturation effect is represented by the dark grey curve. The difference between the two signals isolates the positions of the Lambda-dips, which can be verified from the experimental coefficients. The hyperfine splitting is indicated in red, and the transition frequencies are in good agreement with the positions of the Lambda-dips. Higher accuracy is achieved for the most intense transitions, while the weaker transitions are more difficult to saturate. As already explained in

What would you change ?

11. Alfredo MARIANACCI

[6] Matthew J Lazo, Thomas E Steinberger, Timothy N Good, and Earl E Scime. Measurements of the 5d4□- 5p3 transition of singly ionized atomic iodine using intermodulated laser induced fluorescence. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 277:107960, 2022.

Beware of copy/paste problems

Enantioselective Reduction for the Synthesis of Chiral *N*,*O*-Heterospirocycles to improve Molecular Diversity

Alexandre MARTINEZ,*[a] Karen PLÉ [a] and Sylvain ROUTIER [a]

A simple, quick and efficient Gold(I)-Catalyzed *O*-spirocyclization followed by an enantioselective reduction is described. Cyclization of tertiary alcohol with functionalized alkynes gave a small library of heterospirocycles bearing differently *N*-protected amines. The resulting double-bond is then smoothly reduced in a highly enantioselective way.

What should be modified ?

Acknowledgements

We thank the SALSA platform for spectroscopic measurements (IR, HRMS, LC-MS). We thank the region Centre-Val-de-Loire and the Agence Nationale de la Recherche (ANR), the projects CHemBio (FEDER-FSE 2014-2020-EX003677), Valbiocosm (FEDER-FSE 2014-2020-EX003202), Techsab (FEDER-FSE 2014-2020-EX011313), QUALICHIM (APR-IA-PF 2021-00149467), Project ESTIM-ICOA (CPER / FEDER-FSE+ 2021-2027-00022860), the RTR Motivhealth (2019-00131403) and the Labex programs SYNORG (ANR-11-LABX-0029) and IRON (ANR-11-LABX-0018-01) for their financial support. Sandrine Zubrzycki is deeply acknowledged for all the work regarding the separation of enantiomers.

All sponsors are acknowledged

Check whether some require standard sentences such as “This work was supported by...”

12. Alexandre MARTINEZ

Method The introduction lacks substance: it does not summarise previous research that would help to situate the study within its context. It merely outlines what has been done without setting out the hypotheses or the general experimental design or methodology.

Results The results section reads more like a methodology section, but it does set out the results obtained.

The organisation of the article does not follow the classical one

13. Pouloumdé NIEKIEMA

Use more active tense + make your text more catchy & interesting

The WFE method has been applied to the dynamic analysis of bladed disks subjected to a harmonic engine order excitation. The focus is on the analysis of industrial structures that involve substructure (sector) FE models with many internal and boundary/interface DOFs. To address the issue of computing a large WFE eigenproblem to assess the waves traveling around a bladed disk at many frequencies, a reduction technique has been proposed. Within this framework, the displacement vectors at the substructure interfaces are approximated using a reduced set of boundary modes, and therefore a small number of forward/backward-going waves. Through comparison with the classical cyclic symmetry, the proposed approach has been proven accurate and efficient to compute the response functions of an industrial bladed disk with 3D substructures. While these two methods are comparable for tuned bladed disks, the classical cyclic symmetry finds its limitations when it comes to the analysis of the dynamic response of mistuned bladed disks in which case the method requires the use of the component modes of the full structure.

14. Subhadip PAL

This research article discusses the energy consumption associated with bioethanol production from sugarcane. Through this example presented within this study, the idea that production of cleaner-burning biofuels often requires substantial energy input, frequently derived from fossil fuels such as natural gas and diesel is suggested. Biofuels are promoted as a sustainable alternative to fossil fuels. However, the reliance of biofuel production on fossil fuels offsets the intended reduction in carbon emissions. To systematically evaluate the effectiveness for any biofuel production pathway, the study develops a biomass-to-biofuel energy flow framework and quantifies process efficiencies for a range of biofuel pathways. All energy values are normalized and reported in terms of MJ per kg of input biomass feed to ensure consistency and comparability across different fuel types. From energy flow analysis of other biofuels apart from bioethanol like biodiesel, biogas, syngas (not presented in this study) a clear trend is revealed: as the degree of chemical processing and refinement increases, the overall conversion efficiency from biomass to usable fuel decreases due to cumulative energy losses at each processing stage. It is important to note that this study adopts a defined system boundary limited to industrial operations. Hence activities like harvesting, transportation and fuel distribution are not taken into account. Despite this, through this study we understand that biofuels emitting less carbon emissions at the point of combustion are not necessarily green to produce. This points to the fact that a holistic evaluation of biofuel technologies is important, considering production pathways and its biomass to biofuel conversion efficiency.

misleading abstract because it does not have a canonical structure

14. Subhadip PAL

5. Conclusion

Production pathway of any biofuel will inevitably lead to energy losses. Without the use of fossil fuels, production of certain biofuels will come to a halt. As the complexity of the biofuel production pathway increases, cumulative energy losses make it unviable and reduce the overall efficiency of the process. Increasing energy losses are associated with increasing carbon emissions. A more holistic evaluation of biofuel technologies is necessary keeping production efficiency and life cycle environmental impacts. Despite all this, a cost effective and natural strategy for controlling climate change crisis is the expansion of forest cover through large scale tree planting and ecosystem restoration.

The conclusion is too generic and does not refer to the work done

14. Subhadip PAL

Citations and References No, the referencing is highly flawed and lacks academic transparency. The most critical issue with the manuscript is how it handles its primary data source. The entire paper is built around an operational dataset from a 2018 sugarcane plant in Ecuador. In Section 3, the author casually mentions that this data comes from a study by Arcentales-Bastidas et al. (2022).

This may be a good enough reason to reject the paper

15. Fabiano PERINI

This work presents a comparative study of the ISCT100 (ICARE-CNRS) operating with xenon and argon, focusing on the characterization of the acceleration potential and electric field distribution. By employing Laser-Induced Fluorescence (LIF) spectroscopy, the spatial evolution of the ion velocity profiles is resolved along the thruster axis for both propellants. Directly probing Ar^+ ions presents significant challenges due to the low intensity of the transition chosen, which necessitates long signal integration times. This requirement poses a major operational challenge: the Hall thruster must maintain a stable discharge for several consecutive hours (up to 4-5 hours) without spontaneous shutdowns—a condition difficult to achieve with argon compared to xenon.

In the introduction, one expects to read about the state of the art

17. Gabriel SERRANO-LOPEZ

"The role of secondary phases on grain size reduction during deformation at midcrustal conditions"

Gabriel Serrano-Lopez, Laura Airaghi, Hugues Raimbourg, Ida di Carlo, Jacques Précigout

Abstract

In the continental crust, rock weakening is necessary to localize deformation into shear zones. Most rock weakening in monomineralic rocks at midcrustal conditions is related to grain size reduction via dislocation creep, which is mostly controlled by the flow stress. Nevertheless, in the lithosphere, most rocks are polymineralic. In mica-quartz assemblages, the presence of mica effectively induces rock weakening. This seems to be related to a complex interaction between both phases, rather than just the partition of strain into mica. Nevertheless, few studies have delved into the effect that mica has on the grain size reduction of quartz since most studies assumed deformation to be accommodated in mica. This work aims to test whether quartz grain size is reduced on mica-bearing rocks in controlled deformation conditions and initial grain size, and to discuss the mechanical implications of grain size reduction in polymineralic rocks. To do so, we performed deformation experiments on a pure quartz aggregate and in two aggregates with 30% vol of mica in a Griggs apparatus at T=800°C, P=1 GPa, H_2O=0.1%, and $\dot{e} \approx 1x10^{-5}s^{-1}$, in simple shear geometry. From the post-mortem samples, we compared the grain size distribution and average grain size of the recrystallized fraction. In our samples, the new grains are smaller in mica-bearing rocks than in pure quartz rocks. The presence of mica efficiently promotes grain size reduction of quartz, adding a new weak phase in the system that becomes progressively dominant. The presence of two weak phases can potentially further reduce the strength of crustal rocks by favoring grain-size-sensitive creep over dislocation creep, rather than just partitioning the stress on the initially weak phase. By comparing the flow stress of the experiments and the resulting grain sizes, we concluded that the paleopizometers classically used for calculating the flow stress on shear zones cannot be applied to polymineralic rocks, since they may overestimate the flow stress.

Introduction

The length of the abstract should remain proportionate to that of the paper

17. Gabriel SERRANO-LOPEZ

Menegon, L., Pennacchioni, G., Malaspina, N., Harris, K., & Wood, E. (2017). Earthc
Ductile Shear Zones in the Dry and Strong Lower Crust. *Geochemistry, Geoph*
4356–4374. https://doi.org/10.1002/2017GC007189
Microtectonics. (2005). Springer-Verlag. https://doi.org/10.1007/3-540-29359-0
Précigout, J., Prigent, C., Palasse, L., & Pochon, A. (2017). Water pumping in mantle

Message to everyone :

check carefully all your references

18. Yoan SOARES

second is a non-radical pathway, involving singlet oxygen ($^1O_2$) generation or direct electron transfer between the AC surface and the pollutant [4, 6]. The most recent studies have reported the involvement of singlet oxygen as a dominant reactive oxygen species in PDS/PMS-based AOPs with carbonaceous materials [6].

However, the role of microporosity itself has received little attention. The porosity may play a direct role in the physical retention and confinement of PDS molecules before any activation event. Activated carbons are highly microporous materials whose adsorption properties are

Use the emotional register more often

19. Assyl TAHRI

19 Tahri, Assyl

Originality and significance yes

Structure of the article yes

Title yes it is rightly stated

Abstract yes, it describes that a composition-dependent method can provide a more accurate estimation of temperature, thereby reducing measurement error.

Introduction Make the gap/limitation more explicit

Method yes

Results yes

Conclusion and Discussion they are right

Language does not notice much

Figures and Tables Size of fig 5 and 6 should be improved

Citations and References everything is well placed there

Comments to the author Please refers to authors numbering 1,2,3,4,5,6,7 but only 3 workplace is mentioned

Confidential comments to the editor No

Your recommendation Minor revision required

Such a short referee report is no useful

20. Mina Chavelle TCHOUA TCHOUA

The only author who numbered lines. The referee says thank you !

Abstract

Monitoring long-term changes in soil organic carbon (SOC) is essential for assessing the sustainability of agricultural systems and the contribution of soils to climate regulation. In France, the *Base de Données des Analyses de Terre* (BDAT) provides an exceptional long-term record of SOC concentrations in agricultural soils, comprising nearly 3.8 million records spanning 44 years (1981–2025). This study presents the first comprehensive exploratory analysis of this database, examining the temporal evolution and spatial distribution of SOC across metropolitan France at the canton scale. Results reveal a highly uneven spatial coverage, with western regions substantially overrepresented relative to Mediterranean and mountainous areas. The coexistence of two analytical methods (wet oxidation and dry combustion), with a mean systematic offset of 2.8 $\mathrm{g\,kg^{-1}}$, introduces a methodological discontinuity that precludes direct temporal comparison without prior harmonisation. Canton-level analysis of SOC change between 1991–2000 and 2011–2025 reveals near-stability at the national scale (median $\Delta\mathrm{SOC} = -0.07\ \mathrm{g\,kg^{-1}}$), but pronounced spatial heterogeneity, with individual cantons showing changes ranging from -15 to 15 $\mathrm{g\,kg^{-1}}$. These findings underscore the need for method harmonisation and spatially explicit modelling as prerequisites for robust SOC trend analysis.

20. Mina Chavelle TCHOUA TCHOUA

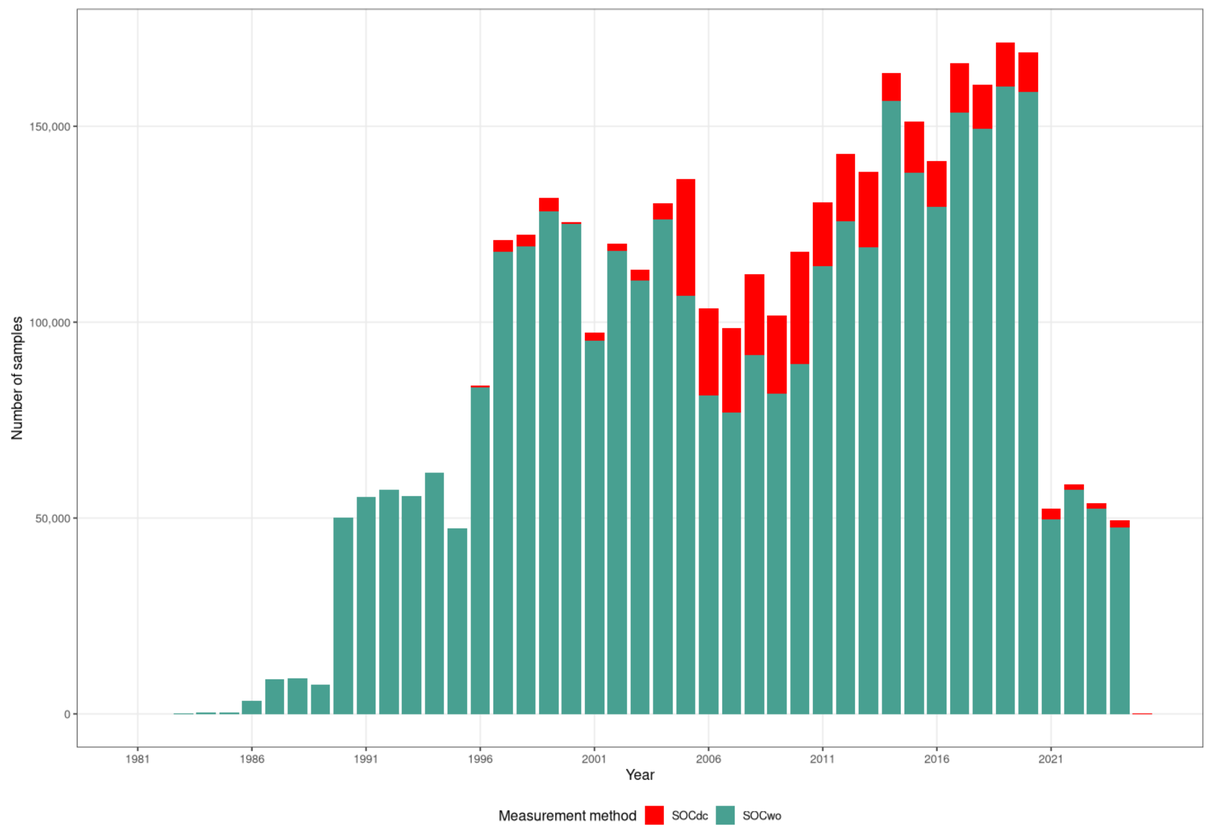


Figure 1: Number of records per year in the BDAT (1981–2025), split by measurement method. Green: wet oxidation (SOCwo); red: dry combustion (SOCdc).

129 **3.2 SOC Content by Method and Period**

Fonts are too small for the plots

20. Mina Chavelle TCHOUA TCHOUA

Criticisms must be well founded

Language I want to bring attention to a specific sentence in the abstract "The coexistence of two analytical methods (wet oxidation and dry combustion), with a mean systematic offset of 2.8 g/kg,introduces a methodological discontinuity that precludes direct temporal comparison without prior harmonisation". This string of words in the same sentence are way to formal. Only an excellent English speaker could conjure this combination of words on their one since we have not English native speakers. If that is the case I taking my hat off to the author. If it was copied by another source or it was made up using AI do not

21. Jakub VOLF

Comments to the author The study is very interesting, and the paper is easy to follow even for a reader outside the field like me. What it mainly needs is some additions: defining the key terms and acronyms, adding the missing Discussion, clarifying figures. With this polish, the paper will be ready to publish. Nice work overall. Good luck in your future work!

Confidential comments to the editor

Your recommendation Reject and resubmit after major revision

Why reject this paper if the comments are minor only ?

4. CONCLUSION

Glass and ceramic samples were prepared by melt-quenching method and aerodynamic levitation. Samples containing willemite crystals or silica enriched nanoparticles were prepared by both methods. Final composition of those samples was different because of zinc evaporation during aerodynamic levitation. Microstructure of samples differed based both on composition and method of preparation.

aerodynamic levitation

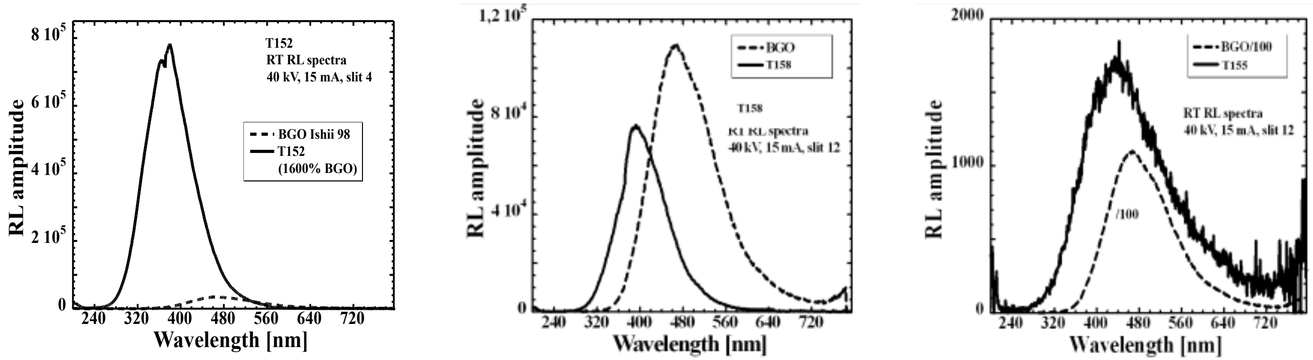


Figure 3. Radioluminescence spectra from left to right: crystalline sample prepared by melt-quenching, sample prepared by aerodynamic levitation containing willemite, sample with phase separation prepared by aerodynamic levitation

Figure fonts are too small

21. Jakub VOLF

ABSTRACT

Glass systems containing ZnO, Al_2O_3 and SiO_2 as the main components have been investigated in recent years for possible development of new glass-ceramic materials useful in optics and photonics applications [1]. The contribution focuses mainly on willemite (rombohedral alpha-Zn_2SiO_4), which has been shown to exhibit strong radioluminescence [2]. The influence of the variable composition of the ZnO–Al_2O_3–SiO_2 (ZAS) system on the growth of willemite, its photo- and radio-luminescence properties and the kinetics of both processes is investigated. Composition is systematically varied in the range 28–60% ZnO. Melt-quenching and aerodynamic levitation with laser heating are used to prepare the samples, composition and microstructure are observed by XRF, XRD, SEM, HRTEM or EDS. The photoluminescence and scintillating properties of Zn_2SiO_4 are evaluated, including decay kinetics and the creation of nanoparticles using both technologies is discussed.

What is the take-home message ?

The results are barely discussed in the text

22. Chenyang XUE

Introduction "The introduction is well-written, clearly defining the environmental problem and establishing a precise objective for the study. However, several critical components should be addressed to provide a more comprehensive foundation for the manuscript:

(1) While the atmospheric context of SO2 oxidation is well-established, the literature review seems restricted to the problem itself rather than the scientific challenge. Specically, the authors mention that only ""two research groups"" have studied reaction (R2) with significant disagreement, yet these groups are neither explicitly named in the text. The authors should explicitly cite these studies and briefly discuss the specific experimental methods they used to help the reader understand where the conflicting data comes from.

(2) The text introduces a ""recently developed relative rate methodology"" to overcome the analytical challenges of prior techniques. However, the introduction lacks a brief description of this new methodology. Adding a few sentences outlining the advantages of their specific method would significantly improve the technical narrative before entering the experimental section.

(3) To ensure a standard academic format, it is highly recommended to conclude the introduction section with a brief roadmap or paragraph outlining the structural organization of the remainder of the manuscript."

Useful and detailed review

EXPERIMENTS METHODS:

Unusual title

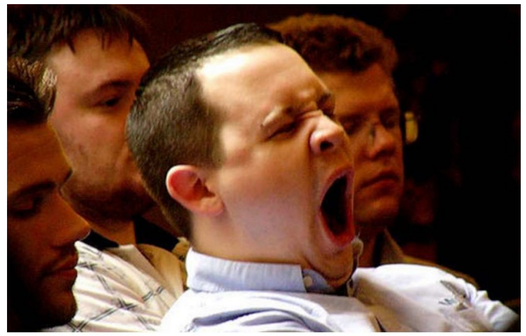
To summarise

Common issues with your reviews

- **Be very specific** : if something is incorrect, say explicitly *what* the issue is and *where* it occurs in the text
- **Be very clear** : avoid wordings such as “maybe”, “seems”, “It seems that”, etc.
- **Avoid colloquial or harsh words** such as “sloppy”, “messy”, “well done”, etc.
- **Justify** : If you request rejection or major revisions, then justify your decision and explain in detail what needs to be changed.
- **You are not required to comment on each item :** highlight what is incorrect or should be improved (but you may also say what is good !)
- **Your role** is to assist the editor in making a decision**.**

Improve your text

Avoid this



Start your abstract / introduction with

- an intriguing example
- a provocative quotation that is closely related to your argument
- a puzzling scenario
- a vivid and perhaps unexpected anecdote
- a thought-provoking question
- a strong statement

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Finish your abstract/conclusions with

- **Outlooks** : what should the next steps be ?
- **Impacts** : what impact will your study have ?
  why should you be funded for this ?
- **Take home message** : what do you want the reader to remember from this study ?
- **Avoid by all means** : “To improve our results we should collect more data...”

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A good article should not only be rigorous and provide novel results
Make your article inspiring !