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| Book Name: | [**Microbiology and Biotechnology Research: An Overview**](https://www.bookpi.org/bookstore/product/microbiology-and-biotechnology-research-an-overview-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5105** |
| Title of the Manuscript: | **Lignocellulose degradation by actinomycetes: A Pathway to Green Biotechnology** |
| Type of the Article | **Book chapter** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **The topic is good. The author could use this to update the reader about comprehensive research done in the area of actinomyctes and Biofuels. Conventionally actinomycetes have found a lot of applications from antibiotics to small molecules. Also given their diversity and presence in extreme environments it is interesting to find out what value they hold in the process of conversion of lignocellullse to alcohol and other products.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **No. Xylanases are not pathway to Green technology. They are part of Green tech.**  **The title could be “Lignocellulose degradation by actinomycetes: A Pathway to sustainable future”** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **The abstract needs few more points. You need to tell the reader among the various other producers of xylanases why are actinomyces special. A line about that will introduce the topic well.** |  |
| **Is the manuscript scientifically, correct? Please write here.** | **To some extent correct. But it doesnot cover the topic in depth.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **Nearly 80-90% of the references are more than 10-15 years old. If this is an update on this area of research then new references need to be reviewed.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | Some places it is not suitable. Like pg4, last line the use of the word “underharvested”. Could be replaced by under utilised. Also “Because of its biotechnological uses in the food, animal feed, waste treatment, ethanol production, textile, and pulp and paper industries, enzymatic hydrolysis of xylan has gained popularity” can be reworded  Pg 5: These sentences “Furthermore, the manufacture of biofuel from lignocellulosic biomass is a major concern for industrial sectors around the world. However, because the initial conversion of biomass into sugars (Lynd LR et.al 2008)----incomplete sentence-------Furthermore, compared to enzymes of mesophilic or neutrophilic origin, very stable enzymes that were active at high temperatures and across a broad pH range had a number of advantages.  Pg 4 again..incomplete sentence  “The full conversion of hemicellulose still requires a large dosage of additional enzymes, though. Thus, the use of xylanases in biotechnology, particularly thermophilic xylanases, and its.”  Pg 6 -sentence to be reworded- Xylanases typically require genetic changes to increase their expression level and enzyme activity, which may have an impact on their stability at high pH and temperatures as well as their substrate selectivity. |  |
| Optional/General comments | Some more work needed on this manuscript before it gets published, include newer references, donot use paraphrasing software ( most times they make sentences that donot make any sense). The manuscript needs to be edited for grammar errors. |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

**Sangeeta Shetty, St. Xavier’s College, India**