



SDI Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_44176
Title of the Manuscript:	Oxidation of Catechol and Hydroquinone in aqueous media by heterogeneous photocatalysis using thin layer of TiO ₂ P25
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	The paper is well written, the research is useful, the result is meaningful, however, if a picture showing each part of the equipment, especially home-made parts, it would be more appreciated, such as, thin layer stainless, etc. The compound ratio between catechol and hydroquinone seems not explicitly mentioned in the paper, is it 50:50? Or something else, readers may need that to help on pinpointing the two by-products mentioned in the paper.	Thank you for your appreciation on this manuscript. We did not put more pictures to make short the manuscript. However, we can add some picture of photocatalytic reactor and thin layer onto stainless steel (Please to see them in joint file) if necessary. Photooxidation of catechol and hydroquinone have been studied separately. So we assume that it is not necessary to mention the ratio because there is no mix of the compound The intermediate at 246 nm is well known to be benzoquinone but the intermediate at 256 is under analysis that is why we are cautious to mention clearly the name.
Minor REVISION comments	The table shows the results of 180 and 300, why not 150 and 300? Or 180 and 360? Or 100, 200 and 300? This way, the readers can see the kinetic trend easier.	180 min = 3 h and 300 = 5 h; 150 min and 300 min can be interesting in terms of kinetic. However, we have just chosen 3h and 5 h because the removal rates at these times are significant for interpretation.
Optional/General comments	In abstract, the P25 supplier Degussa is mentioned, but later on in text Evonik is used, maybe using one name is more consistent, for the readers not familiar with the specific supplier in each country.	Evonik is the chemical industry manufacturing TiO ₂ P25

PART 2:

	Reviewer's comment	Author's comment (if agreed with 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 details)	