



SDI Review Form 1.6

Journal Name:	<u>International Research Journal of Pure and Applied Chemistry</u>
Manuscript Number:	2014_IRJPAC_13578
Title of the Manuscript:	Novel salts of Sunitinib an anticancer drug with improved solubility
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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

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	- Figures 1 and 2 do not really contribute to better understanding of the paper; I recommend replacing these figures by a figure showing structure of sunitinib and the E vs Z isomer and examples of existing salt forms (malate, salts of ref 12-13). I assume the reported salts are different from the ones reported in the present manuscript but this is not clear. - The authors now only report on solubility in DI water. However, in view of the ionisable aromatic nitrogen groups in sunitinib, the pH is of great influence on solubility. Obviously, in vivo solubility is not in DI water but often in acidic conditions (stomach). I recommend a more systematic report on the influence of pH (both pH <5.0 and pH >7.0). In the text only it is mentioned "Nicotinate and Adipate salts exhibited excellent water solubility, particularly at a higher pH (of about pH 7.0)." This suggests that authors have done experiments in which pH was checked/controlled.	Corrected. The pH was not controlled, equilibrium solubility was checked only in deionized water. Solubility of sunitinib base as an API as well as its malate salt the solubility at lower pH is better but as the pH increases the solubility will become lower and lower.
Minor REVISION comments	Introduction contains several sentences that have an illogical content (line 52-53; lines 57-59;	Corrected.



SDI Review Form 1.6

	Regarding the conversion of Z-E isomers: this conversion has been described in (patent literature) and is supposed to be reversible. Did the authors check for appropriate reference for this phenomenon? Type errors (missing space) in line 26, 84, 94, 107, 123 and throughout the manuscript (I stopped marking them) Type error in figure 11 (saccharate)	Yes, we have also published a paper on Z-E isomerism in Sunitinib and we have covered the only facts and diagrams like confirmation by ¹H-NMR and HPLC chromatograms which were not covered in the paper and literature. Corrected (In my original word file mistake was not there, possibly it was due to word incompatibility problem). Corrected.
<u>Optional/General</u> comments		