



SDI Review Form 1.6

PART 1:

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	MS: 2012 IRJPAC 2748
Title of the Manuscript:	Grinding-assisted Solid-State Metathetic Synthesis of Divalent Transition Metal Tungstates

General guideline for Peer Review process is available in this link:

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

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: 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	1) Introduction: among the preparation methods cited, many of them do not require further heat treatment, as claimed by the authors. Particularly, hydrothermal techniques are well known as environmentally-friendly exactly because do not require any further treatment for these systems. Please, explain. 2) Experimental: needs more information (all techniques) 3) Results, fig.1. Please, comment the XRD phases detected below 400°C 4) Fig 2a needs more explanation	1) It is true in many cases, hydrothermal techniques yield the product phases without further heating. But, in reference [26] Parhi et al stated that for NiWO_4 and MnWO_4, XRD showed amorphous nature for the as obtained product and only by heating to moderate temperatures i.e around 500°C for 6hrs single phase crystalline substances are obtained. 2) Included 3) Observed XRD patterns below 400°C does not match with the highest intensity peaks of NiCl_2, Na_2WO_4 and NaCl. Hence these peaks may be ascribed to amorphous precursor with some partially crystalline NiWO_4. [(002), (022) and (220) peaks] 4) The washed product did not indicate any sharp peaks characteristic of the reactants or NaCl by product. The broad peak coincides with the 100% intensity peak of ZnWO_4 and this can be attributed to ZnWO_4 in the amorphous form.



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	5) Figs 1 to 4: is it possible to condense or merge all these figures? 6) Fig 5 and Raman results are not well interpreted. There are many references concerning this subject. 7) Fig 6 is not really necessary. 8) The reference list must be revised for the systems studied	5) As the XRD patterns given in figures 1 to 4 correspond to different synthesis namely Ni, Zn, Mn, Co and Fe tungstates, merging of these 9 XRD patterns into one figure we make it more cumbersome. 6) Explained in text and references are also included. 7) In some cases like CdWO_4, we obtained a different micro structure where as in this case it does not show any specific morphology. However this is incorporated to show the elemental analysis obtained by EDS. 8) Revised and included
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		