



SDI Review Form 1.6

PART 1:

Journal Name:	<u>American Chemical Science Journal</u>
Manuscript Number:	2013 ACSj 4343
Title of the Manuscript:	Thermodynamics of the solvation of lead nitrate in mixed DMF-H₂O solvents at 301.15 K.
Type of the Article	Research Paper

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 7 parts. Kindly note that you should use all the parts of this review form.



SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment <p>The paper by Gomaa on “Thermodynamics of the solvation of lead nitrate in mixed DMF-H₂O solvents at 301.15 K” should not be published in American Chemical Science Journal nor anywhere else. The only thing that is apparently correct in this paper is the list of 7 concentrations of the saturated solutions (Table 1), and even there the column heading “S g.mol/e” is wrong (should be: “s, mol/L”). All the rest is incorrect:</p> <ol style="list-style-type: none">1) The English is bad.2) The Debye-Hückel expression (1) is inapplicable at the concentrations of > 1 mol/L encountered here. Anyway, the coefficient depends on the permittivity of the solvent and cannot be the constant 0.5062.3) The ratio of the ionic radii of lead and nitrate is much larger than 0.1304 (it is near 0.66) and it is not clear how this number was attained (the reference given, [33], is wrong).4) In eq. (6) the factor 2 of $\Delta G_s(H^+)$ should have been removed.5) The statement at the bottom of p. 6 that : “anion values are positive indicating exothermic character” is wrong; “endothermic character” is meant.6) Assuming that the pK_{sp} values in Table 1 are correct (they are not, in view of the incorrect	Author's comment <i>(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)</i>



SDI Review Form 1.6

	activity coefficients), then the last three items in columns 5 and 6 are wrong, hence also Fig. 1 is wrong. 7) etc.	
<u>Compulsory</u> REVISION comments		
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

Note: Anonymous Reviewer