**Response to reviewer's comments**

Dear editors and reviewers:

Thanks a lot for your attention paid to this study. We are very appreciated for the professional and illuminating comments provided by the reviewers. These comments and suggestions are valuable for both the manuscript and our subsequent research. We have tried our best to revise the manuscript based on the comments. We hope the revision can be satisfactory. The illustration of the revisions is shown as follows.

**Reviewer: B**

The Manuscript "Removal of lithium from water by amino methyl phosphonic
acid containing resin" covers interesting and relatively novel theme. It is
correct and well written, however

1) Additional language check by a native English speaker is recommended.

**Answer:** Whole manuscript checked by Dr. Emre Seyyal who had his Ph.D. degree in University of South Florida.

2) Also, a slight extension to the Introduction chapter would improve the
Manuscript.

**Answer:** Introduction part was extended.

3) The Conclusion should be written with more details.

**Answer:** Conclusion part improved and extended.

Reviewer: C

ADDITIONAL COMMENTS

1) Page2- Line 55- The sentence ‘Resin was converted into Na+ form by exposing it to 2 M NaCl solution for 24 hours 55 then washed with pure water and dried in oven before use` should be rewritten.

**Answer:** The sentence was modified.

2) Page 3- Line 62-The sentence ‘For this Li2CO3 transferred into pure water containing beaker then HCl was added for complete dissolution after that solution was heated to remove dissolved CO2 and then cooled to room temperature then transferred to volumetric flask for final dilution` should be rewritten.

**Answer:** The sentence was modified.

3) Page 8- Line 157- The sentence ‘The removal of Li+ was increased linearly at the beginning of the experiment and after 15 min reached an equilibrium’ should be rewritten.

**Answer:** The sentence was modified.

4) Li analysis, The range of Li standards was chosen in the range of  0. 1to  5 mg/L, What is reason? Concentration of Li+ is too low and for its high concentration experiments should be done.

**Answer:** Such concentrations are for the preparation of calibration curve, which was used to find the Li concentration in the solution. The flame photometer we used has four different sensitivity range and the measurement was carried out in the most sensitive range to measure the low Li concentration. If the concentration of Li is high (especially for isotherm study), appropriate dilution was made to reduce its concentration to calibration range (0.1 to 5 mg/L). This is why we think that it is not necessary to carry out additional experiments (measurements) for high concentration of Li.

5) Page 5- Line 102, The sentence `In order to clarify the pH effect on Li+ sorption, optimum resin dose contacted with Li+ solution at different pH range (pH 1-6)` should be rewritten.

**Answer:** The sentence was modified.

6) Page 5- Line 105- ‘also’ should be omitted.

**Answer:** Thanks for the correction. The “also” term omitted

 7) For kinetic study, intraparticle diffusion model should be studied and added to manuscript.

**Answer:** The intrapaticle diffusion model added to manuscript.

8) For thermodynamic study, number of temperature should be increased. They should be more than three values.

**Answer:** The number temperature was increased. Since the reins are polymeric materials, we did not work with higher temperatures.

9) After all regeneration, desorbed Li amount is same. After 0.1 M, why was
acid or base concentration increased?

**Answer:** Regeneration with lower concentration of HCl, H2SO4, and NaCl were carried out. Regeneration efficiency depends on ion`s charge and functional group properties. We performed regeneration experiments with lower concentration and obtained results added to Table 6.

10) What is adsorption capacity of resin after regeneration? How many times can resin be used for Li adsorption?

**Answer:** The cycle experiments (sorption-regeneration-sorption) were carried out and obtained results added to text.

11) Lastly, there is no any comparison of experimental results with literature. The results should be supported and compared with literature.

. **Answer:** We inserted new table to text and in this table we compared previously used sorbents` capacity with ion exchange resin.