



SDI Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_36656
Title of the Manuscript:	Crystal Structure and Thermal Properties of Racemic BaC ₄ H ₄ O ₆ •H ₂ O Single Crystals
Type of the Article	Original Research Article

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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		
Minor REVISION comments	This paper deals with the single crystal synthesis of $\text{BaC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ by solvent diffusion method. This crystal is very important in chiral crystal material for optical devices. I supported it to be published in the journal after minor revision. 1, the growth of the single crystal with this method need the detail initial experimental conditions such as temperature, solution pH as well as the time, this paper using 6 month to grow this crystal without detail initial conditions, how to keep the condition not changed for 6 month? it is not rational description for publishing, please gives out the more detail information about the initial conditions. 2, some similar paper has been published in the journal of Adv. Appl. Sci. Res., 2013, 4(5):223-231, Moses Ezhil Raj, A. and Deva Jayanthi, D. and Bena Jothy, V. and Jayachandran, M. and Sanjeeviraja, C. (2008) Growth aspects of barium oxalate monohydrate single crystals in gel medium. Cryst. Res. Technol., 43 (12). pp. 1307-1313. They are the good references for the description of the manuscript. 3, IR spectra and element analysis or other techniques may be need to identify the exist of water molecules in the crystal and other elements.	We wish to thank you for your informative comments. 1. According to the suggestion, we added one sentence "the test tubes containing the gel and solution were placed in a drying apparatus kept at the constant temperature of 308 K by a temperature control unit" in the revised manuscript. The pH of the gel solutions is known to be about pH 4 according to the colour chart provided on the container of pH test paper, but an accurate value of the pH cannot be confirmed because there is no pH meter in our laboratory. Thus, the value of the pH is not added in the revised manuscript. This does not practically affect the method of crystal growth because the concentrations and amounts of the all solutions are described in detail in the manuscript, and the single crystals of racemic $\text{BaC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ can be grown using the same condition in it. 2. The two suggested papers are not added in the references of the revised manuscript. The lattice parameters and symmetry of structural units of strontium tartrate crystals in the suggested paper (Adv. Appl. Sci. Res.) are different from those of the regular $\text{SrC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$ structure in the recently published paper. Moreover, the barium oxalate crystal in the other paper (Cryst. Res. Technol.) does not belong to the group of tartrate crystals, and tartrate acid is not used for the growth of barium oxalate monohydrate. 3. Measurements of IR spectra and element analysis cannot be performed because there are no measuring apparatuses in our laboratory. We believe that the information regarding the presence of water molecule in the crystal obtained by single-crystal X-ray diffraction is more accurate and direct than those by other measurements.
Optional/General comments		