

Dear Dinesh Dhankhar and Matthew Wehner,

Following the Reviewers comments I recommend a major revision of your manuscript in order to be accepted for publication in GI. Please provide a point-by-point answers to Reviewers' suggestions and the revised manuscript with marked differences.

I would also suggest a few general comments from myself:

- 1) Please pay appropriate attention to questions of the second Reviewer about collecting of photons and the SNR. In this manuscript you provide very limited technical information about the set-up, massively referring to your 2021 paper in RSI. However, there is no much information in that paper either. That makes difficult for an interested reader to reproduce your set-up.
- 2) In the 2021 RSI paper you discuss some problems of noise specific to cell-phone cameras. In the present paper you note a significant progress of phone cameras. From everyday life we know how different are cameras of different brands and models. A great share of their success is associated with digital post-processing of images. Maybe you wish to touch upon these issues when discussing the SNR.
- 3) At many instances you discuss a possible Raman cell-phone accessory or even a Raman built into a cell-phone. Yet there is a large technological gap between your low-cost prototype and these potential products. Their cost, including the needed application software and likely a specific cell-phone, might be much higher and it is not obvious how the potential cell-phone device competes with some hand-held Raman device available on the market. Filling this tech gap is the most challenging while the applicability of a modest Raman device for mineral characterization hardly rises many objections. As the parameters of the set-up are still somewhat arbitrary, the value of technique validation is lowered. Such considerations might be behind the remark of the first Reviewer that the presentation resembles a product note. You might wish to change some accents accordingly.

With best wishes,  
Oleg Korablev