The article “Spatially structured optical pump for laser generation tuning” written by Gabrielius Kontenis with co-authors can be published in Nanomaterials after appropriate minor revision. A sequential complete analysis of the output mode modification in the case of flat-flat one and flat-curved resonator configurations – it was evaluated the generated beam’s output power and propagation parameters.

The presented results are of scientific interest however I leave it to the journal editor's decision, but in my opinion the topic of the article is not within the main topics of the journal. Also the work is more technological in nature than fundamental.

Authors should pay attention to the following remarks that need to be answered and make the relevant changes to the article.

1. It is necessary to specify and describe in more detail the specifics of phase masks (holograms) formation shown in Figures 9 a-e, 10 a-e. Provide a detailed description of the SLM characteristics and how it is controlled. Is it a commercially available SLM or of your homemade SLM? Were holograms simulated to obtain a specific modulation of laser beams? What was the motivation for utilising a particular type of hologram to achieve ring-type and elongated beams?

2. It should be clarified that with lasers advent there is active research not only on power increasing and higher beam quality but also on the development of ultra-narrow bandwidth lasers, wavelength design and tuning, control of pulse duration, operation efficiency, etc.

3. The third remark is of a recommendatory nature. In case the authors consider it appropriate to mention such a demanded problem in the field of nanophotonics, quantum computing and communication as light control by light. In the work context, it is reasonable for me to consider and compare the results and peculiarities of beam acts as multiple coherent emitters formation in the case of self-diffraction processes described in previously published studies, e.g. on dynamic photonic crystals (https://doi.org/10.1364/OL.389127, https://doi.org/10.1134/S0021364016220136) or on circular aperture (https://doi.org/10.1016/j.physe.2012.05.028)