Manuscript ID:

Title: **Mode-locked Thulium Ytterbium co-Doped Fiber Laser with Graphene**

**Saturable Absorber**

**Photonics Letter of Poland**

The manuscript has been revised to address all the reviewer comments to the best of our ability. Point to point answers to the comments are;

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| **Comments** | **Action** |
| 1. What limits the bandwidth of the emission in the current setup? The Authors should add a short discussion about how they can improve the bandwidth. | The emission bandwidth is depended on TYDF gain profile. By controlling the TYDF length, the optimum gain profile can be achieved. To improve the bandwidth to a longer wavelength, holmium can be added into TYDF at fiber fabrication process.  “The lasing formation at particular wavelength is depended on TYDF gain profile and also cavity loss. By optimizing the TYDF length and minimize the cavity loss, the preeminent gain profile can be achieved as in this work. Longer wavelength can be achieved if holmium is added in the TYDF.”  **(As added and underlined in page 2, column 1)** |
| 1. Why is the energy decreasing above 1750 mW of pump power? A short discussion on the origin of this behavior would be helpful. | “Above 1750 mW pump power, the phase noise increases and affects the output power and pulse energy. Consequently, degrades the pulse performance and later eliminate the pulse once the pump power reach above 1964 mW.”  **(As added and underlined in page 3, column 1)** |
| 1. I am not sure if signal-to-noise ratio of 34 dB in the RF measurement? Confirms stability of the mode-locking? This value is rather unsatisfactory. For stable mode-locked lasers, the SNR reaches at least 60 dB. I think that the Authors should remove this statement (or at least comment why only 34 dB, and compare it to other reports on 1.9m lasers). | Some statement has been removed as suggested by reviewer.  “….. Its fundamental mode peak locates at the frequency of 11.76 MHz and has a signal-to-noise ratio (SNR) of 34 dB, which confirms the presence of the mode-locking operation in the frequency domain. Due to absorption limitation from graphene SA, the obtained SNR at 1964 mW is degraded.”  **(As added and underlined in page 3, column 1)** |