

# Search of Gamma Ray Burst detected by GBM alike to GRB170817A

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Since the detection of Gravitational Waves (GW), a new window of multi-messenger astronomy was opened. The first GW event with an electromagnetic counterpart was GRB 170817A, an under luminous burst with properties of a short burst that was detected by Fermi-GBM, among other observatories. This burst revealed two different spectral components in the GBM energy range, a short-lasting non-thermal pulse at early times followed by a soft thermal component. Previous studies have identified similar bursts based on these spectral and temporal features similar to GRB 170817A. In this work, we extend the search for short bursts alike GRB170817A in the northern sky detected from 2018 to 2020. The initial search based on temporal restrictions gave 56 possible candidates. From these, only two bursts were consistent with the spectral behavior. Here we report their spectral features, and based on the synchrotron-self Compton forward-shock model, we discuss the possible theoretical implications for these two bursts.

## Keywords

## Collaboration

## other Collaboration

## Subcategory

Experimental Results

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