Model	α	β	E_{peak} (keV)	A_1	kT (keV)	A_2	Γ	A_3	$\log(\mathcal{L}) \ / \ \mathrm{BIC} \ / \ \mathcal{Z}$	Flux $\times 10^{-6}$ (erg s ⁻¹ cm ⁻²)	Fluence $\times 10^{-5}$ (erg cm ⁻²)	$E_{iso} \times 10^{53}$ (erg)
S	-1.105 $+0.013$ -0.024	-2.278 $+0.021$ -0.033	530.2 +43.6 -20.8	-2.058 $+0.005$ -0.008					-220.71/466.08/-241.10	1.253 +0.040 -0.025	7.728 +0.249 -0.154	1.125 +0.036 -0.022
S+B	-1.122 $+0.032$ -0.007	-2.306 $+0.050$ -0.005	$568.2 \\ +6.7 \\ -59.2$	$^{+0.016}_{-0.003}$	$\begin{array}{c} 27.4 \\ ^{+142.1} \\ ^{-5.7} \end{array}$	-1.324 $+1.713$ -10.714			-220.62/478.25/-241.89	$1.272 \\ \substack{+0.023 \\ -0.045}$	$7.848 \\ \substack{+0.139 \\ -0.277}$	$1.143 \\ ^{+0.020} _{-0.040}$
S+L	$^{+0.019}_{-0.018}$	$^{+0.041}_{-0.012}$	$542.2 \\ +32.5 \\ -32.2$	$^{+0.001}_{-0.006}$			$0.788 \\ ^{+1.287}_{-4.090}$	$^{+7.474}_{-1.003}$	-220.02/477.04/-242.31	$1.261 \\ \substack{+0.033 \\ -0.034}$	$\begin{array}{c} 7.778 \\ +0.206 \\ -0.210 \end{array}$	$1.132 \\ \substack{+0.030 \\ -0.031}$
S+B+L	$^{+0.017}_{-0.021}$	$^{+0.052}_{-0.002}$	$525.7 \\ +45.3 \\ -17.1$	-2.058 +0.004 -0.009	$155.1 \\ ^{+12.3}_{-120.9}$	$^{+7.410}_{-1.494}$	$0.402 \\ ^{+0.918}_{-3.686}$	-12.692 $+5.324$ -1.070	-219.88/489.10/-242.36	$1.246 \\ \substack{+0.045 \\ -0.020}$	$7.685 \\ \substack{+0.275 \\ -0.121}$	$\begin{array}{c} 1.119 \\ ^{+0.040} \\ ^{-0.018} \end{array}$
G+B	-1.029 $+0.024$ -0.026	-2.294 $+0.028$ -0.030	$\substack{643.9 \\ +54.1 \\ -50.9}$	-1.992 $+0.012$ -0.011	$98.9 \\ +71.1 \\ -64.4$	-9.006 +6.108 -2.928			-219.76/476.53/-242.69	$\substack{1.285 \\ +0.038 \\ -0.037}$	$7.928 \\ \substack{+0.235 \\ -0.225}$	$1.154 \\ \substack{+0.034 \\ -0.033}$
G	-1.028 $+0.024$ -0.025	-2.288 $+0.021$ -0.039	$\substack{640.3 \\ +61.7 \\ -47.1}$	$-1.990 \\ +0.010 \\ -0.014$					-219.79/464.24/-242.72	$\substack{1.287 \\ +0.037 \\ -0.040}$	$7.943 \\ \substack{+0.229 \\ -0.244}$	$1.156 \\ \substack{+0.033 \\ -0.036}$
G+L	-1.028 +0.023 -0.026	-2.345 $+0.078$ -0.019	$\begin{array}{c} 653.0 \\ +49.8 \\ -60.8 \end{array}$	-1.994 $+0.015$ -0.010			$0.576 \\ ^{+1.063} _{-3.914}$	-13.447 $+6.275$ -0.269	-218.76/474.52/-243.21	$1.271 \\ \substack{+0.054 \\ -0.024}$	$7.841 \\ \substack{+0.336 \\ -0.146}$	$1.142 \\ \substack{+0.049 \\ -0.021}$
G+B+L	-1.023 $+0.018$ -0.031	-2.288 +0.021 -0.037	$\begin{array}{c} 617.6 \\ +81.2 \\ -26.5 \end{array}$	-1.986 +0.007 -0.017	$187.1 \\ ^{+19.0}_{-151.9}$	-7.032 $+4.045$ -4.991	$0.496 \\ ^{+1.155} _{-3.751}$	$\begin{array}{c} -13.476 \\ +6.229 \\ -0.281 \end{array}$	-219.11/487.57/-243.48	$1.266 \\ \substack{+0.056 \\ -0.020}$	$7.809 \\ \substack{+0.345 \\ -0.123}$	$1.137 \\ \substack{+0.050 \\ -0.018}$
C+L	-0.894 +0.025 -0.148		$\begin{array}{c} 605.2 \\ ^{+111.5} \\ ^{-21.4} \end{array}$	-2.027 $+0.028$ -0.010			-1.729 $+2.597$ -0.015	$-3.053 \\ +0.040 \\ -11.352$	-240.21/511.26/-264.85	$\substack{1.062 \\ +0.073 \\ -0.026}$	$\substack{6.554 \\ +0.452 \\ -0.158}$	$0.954 \\ \substack{+0.066 \\ -0.023}$
C+B+L	-0.898 +0.020 -0.150		$614.0 \\ ^{+110.9}_{-27.1}$	-2.030 $+0.032$ -0.006	$52.8 \\ ^{+117.6} _{-17.6}$	$-3.525 \\ +0.693 \\ -8.250$	-1.727 $+2.621$ -0.012	$-3.044 \\ +0.018 \\ -11.494$	-240.23/523.64/-265.14	$1.075 \\ \substack{+0.063 \\ -0.035}$	$\substack{6.630 \\ +0.391 \\ -0.217}$	$0.965 \\ \substack{+0.057 \\ -0.032}$
С+В	-1.358 $+0.018$ -0.006		$6418.9 \\ ^{+84.8}_{-198.4}$	-2.225 $+0.008$ -0.012	$55.5 \\ +2.4 \\ -3.8$	$0.242 \\ \substack{+0.031 \\ -0.045}$			-270.02/570.89/-294.56	$\substack{1.748 \\ +0.063 \\ -0.045}$	$10.784 \\ \substack{+0.388 \\ -0.279}$	$1.570 \\ \substack{+0.057 \\ -0.041}$
C	-1.041 $+0.021$ -0.025		$697.4 \\ +71.7 \\ -42.9$	-1.998 +0.010 -0.013					-306.07/630.64/-322.21	$1.096 \\ ^{+0.067}_{-0.040}$	$\substack{6.761 \\ +0.410 \\ -0.248}$	$0.984 \\ \substack{+0.060 \\ -0.036}$

Table 1. BXA Auto Runs fit results for bn090328401 using GBM + LAT data.

Model	α	β	E_{peak} (keV)	A_1	kT (keV)	A_2	Γ	A_3	$\log(\mathcal{L}) \ / \ \mathrm{BIC} \ / \ \mathcal{Z}$	$Flux \times 10^{-6}$ $(erg s^{-1}cm^{-2})$	Fluence $\times 10^{-5}$ (erg cm ⁻²)	$E_{iso} \times 10^{53}$ (erg)
S+B (v2)	$^{-1.082}_{\substack{+0.010 \ -0.047}}$	$-2.304 \\ +0.046 \\ -0.005$	$529.3 \\ ^{+45.0} _{-20.5}$	$^{+0.010}_{-0.003}$	$11.1 \\ ^{+158.0}_{-22.1}$	-1.222 $+2.093$ -11.587			-220.69/478.38/-241.82	$\substack{1.259 \\ +0.034 \\ -0.032}$	$7.765 \\ \substack{+0.209 \\ -0.195}$	$1.131 \\ ^{+0.031}_{-0.028}$
S+B (v1)	$^{+0.017}_{-0.021}$	$-2.275 \\ +0.017 \\ -0.036$	$532.7 \\ ^{+41.6}_{-23.7}$	$^{+0.006}_{-0.007}$	$11.1 \\ ^{+158.3}_{-26.5}$	$^{-2.268}_{^{+0.898}}_{^{-10.658}}$			-220.67/478.34/-241.97	$\begin{array}{c} 1.251 \\ ^{+0.043} \\ ^{-0.023} \end{array}$	$7.717 \\ \substack{+0.266 \\ -0.142}$	$\substack{1.124 \\ +0.039 \\ -0.021}$
S	$^{+0.014}_{-0.025}$	$\substack{-2.279 \\ +0.021 \\ -0.032}$	$532.8 \\ ^{+42.7}_{-24.7}$	$^{+0.006}_{-0.008}$					-220.70/466.08/-242.35	$\substack{1.255 \\ +0.038 \\ -0.030}$	$7.744 \\ \substack{+0.237 \\ -0.182}$	$\substack{1.127 \\ +0.035 \\ -0.027}$
G	$^{+0.026}_{+0.021}_{-0.028}$	$\begin{array}{c} -2.295 \\ +0.029 \\ -0.029 \end{array}$	$\begin{array}{c} 634.7 \\ +65.3 \\ -41.9 \end{array}$	$-1.990 \\ +0.011 \\ -0.013$					-219.78/464.23/-242.49	$\substack{1.276 \\ +0.046 \\ -0.028}$	$7.873 \\ \substack{+0.286 \\ -0.174}$	$\substack{1.146 \\ +0.042 \\ -0.025}$
S+B+L	$\begin{array}{c} -1.115 \\ +0.024 \\ -0.014 \end{array}$	-2.306 $+0.048$ -0.005	$542.1 \\ +32.0 \\ -33.9$	$^{+0.060}_{+0.007}_{-0.006}$	$30.1 \\ ^{+138.6} _{-3.7}$	-9.733 $+6.532$ -3.058	-0.032 $+0.544$ -3.265	$^{-10.859}_{\substack{+3.700 \\ -2.792}}$	-220.20/489.73/-242.76	$\substack{1.259 \\ +0.034 \\ -0.033}$	$\begin{array}{c} 7.771 \\ +0.208 \\ -0.204 \end{array}$	$\substack{1.131 \\ +0.030 \\ -0.030}$
G+B (v1)	-1.028 $+0.024$ -0.027	-2.292 $+0.027$ -0.033	$\substack{637.4 \\ +65.4 \\ -45.1}$	$^{-1.990}_{\substack{+0.011 \ -0.014}}$	$166.5 \\ ^{+3.6}_{-132.8}$	$\substack{-2.452 \\ +0.866 \\ -10.395}$			-219.75/476.51/-243.09	$\substack{1.279 \\ +0.046 \\ -0.032}$	$7.894 \\ \substack{+0.281 \\ -0.198}$	$\substack{1.149 \\ +0.041 \\ -0.029}$
G+B (v2)	$^{-1.016}_{\substack{+0.011 \\ -0.037}}$	-2.294 $+0.029$ -0.031	$641.4 \\ +56.3 \\ -48.5$	$-1.990 \\ +0.011 \\ -0.012$	$5.3 \\ ^{+163.7} _{-28.8}$	-1.708 $+1.565$ -11.210			-219.77/476.54/-243.14	$\substack{1.294 \\ +0.029 \\ -0.047}$	$7.986 \\ \substack{+0.181 \\ -0.291}$	$\substack{1.163 \\ +0.026 \\ -0.042}$
G+L	-1.038 $+0.036$ -0.014	-2.291 $+0.024$ -0.034	$\begin{array}{c} 651.7 \\ +46.1 \\ -62.8 \end{array}$	$^{-1.995}_{\substack{+0.017 \\ -0.008}}$			-0.289 $+0.933$ -3.110	-9.962 $+4.173$ -0.649	-219.43/475.86/-243.46	$\substack{1.283 \\ +0.038 \\ -0.038}$	$\begin{array}{c} 7.916 \\ ^{+0.232} \\ ^{-0.233} \end{array}$	$\substack{1.152 \\ +0.034 \\ -0.034}$
S+L	$^{+0.016}_{-0.023}$	$\substack{-2.291 \\ +0.034 \\ -0.020}$	$525.5 \\ +46.4 \\ -18.6$	$^{+0.060}_{\substack{+0.007 \\ -0.006}}$			-0.489 $+0.734$ -2.855	-9.083 $+3.085$ -0.282	-220.50/478.01/-243.54	$\substack{1.239 \\ +0.053 \\ -0.013}$	$7.644 \\ \substack{+0.330 \\ -0.081}$	$\substack{1.113 \\ +0.048 \\ -0.012}$
G+B+L	-1.028 $+0.024$ -0.025	$\substack{-2.321 \\ +0.054 \\ -0.003}$	$646.6 \\ ^{+50.1}_{-54.3}$	-1.993 $+0.014$ -0.009	$159.2 \\ ^{+9.0}_{-124.9}$	$^{-10.187}_{\substack{+6.969 \\ -2.704}}$	$0.839 \\\substack{+1.319 \\ -4.107}$	-14.927 $+7.573$ -1.136	-218.97/487.27/-243.67	$\substack{1.272 \\ +0.049 \\ -0.024}$	$\begin{array}{c} 7.847 \\ +0.300 \\ -0.146 \end{array}$	$\substack{1.143 \\ +0.044 \\ -0.021}$
C+L	-0.904 $+0.033$ -0.141		$\begin{array}{c} 622.5 \\ +98.9 \\ -39.5 \end{array}$	$^{+0.039}_{-0.008}$			$\substack{-1.726 \\ +2.606 \\ -0.018}$	-3.062 $+0.051$ -11.410	-240.30/511.44/-264.67	$\substack{1.084 \\ +0.051 \\ -0.048}$	$\substack{6.688 \\ +0.317 \\ -0.294}$	$\substack{0.974 \\ +0.046 \\ -0.043}$
C+B+L	$\substack{-0.867 \\ +0.005 \\ -0.176}$		$\substack{624.0 \\ +92.6 \\ -41.2}$	$\substack{-2.051 \\ +0.053 \\ -0.015}$	$\substack{26.2 \\ +141.6 \\ -7.2}$	$\substack{-1.105 \\ +2.108 \\ -11.644}$	-1.743 $+2.624$ -0.000	$\substack{-2.959 \\ +0.055 \\ -11.512}$	-240.16/523.50/-265.15	$\substack{1.087 \\ +0.045 \\ -0.050}$	$\substack{6.707 \\ +0.279 \\ -0.309}$	$\begin{array}{c} 0.976 \\ ^{+0.041} \\ ^{-0.045} \end{array}$
C+B	$^{+0.011}_{-0.014}$		$\begin{array}{c} 6502.1 \\ ^{+7.0} \\ ^{-276.7} \end{array}$	$\substack{-2.230 \\ +0.013 \\ -0.007}$	$54.7 \\ {}^{+3.1}_{-3.1}$	$0.237 \\ ^{+0.036}_{-0.042}$			-269.99/570.82/-294.69	$\substack{1.760 \\ +0.054 \\ -0.057}$	$10.862 \\ \substack{+0.334 \\ -0.350}$	$\substack{1.581 \\ +0.049 \\ -0.051}$
С	-1.041 $+0.020$ -0.025		$\begin{array}{c} 697.8 \\ +67.4 \\ -42.9 \end{array}$	-1.997 $+0.008$ -0.013					-306.07/630.64/-321.93	$\substack{1.098 \\ +0.060 \\ -0.041}$	$\substack{6.772 \\ +0.369 \\ -0.255}$	$\begin{array}{c} 0.986 \\ ^{+0.054} \\ ^{-0.037} \end{array}$

Table 2. BXA Original Runs fit results for bn090328401 using GBM + LAT data.

Model	α	β	E_{peak} (keV)	A_1	kT (keV)	A_2	Γ	A_3	C-Stat / $\log(\mathcal{L})$ / AIC / BIC	$Flux \times 10^{-6}$ $(erg s^{-1}cm^{-2})$	Fluence $\times 10^{-5}$ (erg cm ⁻²)	$E_{iso} \times 10^{53}$ (erg)
G	$^{-1.027}_{+0.025}_{-0.024}$	$^{+0.028}_{-0.030}$	$\substack{635.2 \\ +88.9 \\ -76.0}$	$^{-1.990}_{\substack{+0.012 \ -0.012}}$					439.48/-219.74/447.48/464.15	$\substack{1.280 \\ +0.037 \\ -0.037}$	$7.897 \\ \substack{+0.227 \\ -0.227}$	$1.150 \\ \substack{+0.033 \\ -0.033}$
S	-1.109 $+0.019$ -0.019	-2.281 $+0.026$ -0.027	$536.8 \\ +70.3 \\ -60.3$	-2.059 $+0.006$ -0.006					441.36/-220.68/449.36/466.03	$\substack{1.258 \\ +0.032 \\ -0.032}$	$7.759 \\ \substack{+0.197 \\ -0.197}$	$\substack{1.130 \\ +0.029 \\ -0.029}$
G+B (v1)	-0.963 +0.067 -0.060	-2.280 $+0.028$ -0.030	$584.7 \\ +136.3 \\ -115.1$	-1.982 $+0.016$ -0.015	$7.6 \\ ^{+2.6}_{-2.4}$	-1.120 $+0.288$ -0.694			438.10/-219.05/450.10/475.11	$\substack{1.262\\+NA\\-NA}$	$7.786 \\ \substack{+NA \\ -NA}$	$1.134 \atop \substack{+NA \\ -NA}$
G+B (v2)	-1.045 $+0.041$ -0.064	-2.292 $+0.032$ -0.034	$662.7 \\ ^{+253.2}_{-126.9}$	-2.003 $+0.024$ -0.047	$\begin{array}{c} 57.7 \\ +NA \\ -NA \end{array}$	-0.924 +0.613 -NA			439.39/-219.69/451.39/476.39	$\substack{1.282 \\ +0.047 \\ -0.047}$	$7.909 \\ \substack{+0.293 \\ -0.293}$	$1.151 \\ \substack{+0.043 \\ -0.043}$
G+L	$^{-1.022}_{\stackrel{+NA}{-NA}}$	$^{-2.287}_{\stackrel{+NA}{-NA}}$	$624.9 \\ {+NA} \\ {-NA}$	$^{-1.987}_{\ +NA}_{\ -NA}$			$^{-1.885}_{\ +NA}_{\ -NA}$	$^{+0.023}_{-NA}$	439.53/-219.77/451.53/476.54	$\substack{1.274 \\ +0.051 \\ -0.051}$	$7.860 \\ \substack{+0.312 \\ -0.312}$	$1.144 \\ ^{+0.045}_{-0.045}$
S+B (v2)	-1.124 $+0.110$ -0.041	-2.295 $+0.030$ -0.034	$\begin{array}{c} 590.7 \\ +184.9 \\ -162.0 \end{array}$	-2.080 $+0.023$ -0.027	$\begin{array}{c} 27.7 \\ ^{+14.0} \\ ^{-20.4} \end{array}$	-0.874 +0.427 -0.416			440.04/-220.02/452.04/477.04	$\substack{1.283 \\ +0.039 \\ -0.039}$	$7.917 \\ \substack{+0.241 \\ -0.241}$	$1.153 \\ \substack{+0.035 \\ -0.035}$
S+B (v1)	-1.068 +0.054 -0.097	-2.278 $+0.026$ -0.052	$524.6 \\ +266.0 \\ -96.2$	-2.066 $+0.009$ -0.010	$10.2 \\ ^{+24.1}_{-2.9}$	-1.072 $+0.280$ -0.869			440.04/-220.02/452.04/477.05	$\substack{1.254 \\ +0.033 \\ -0.033}$	$7.735 \\ \substack{+0.201 \\ -0.201}$	$\substack{1.126 \\ +0.029 \\ -0.029}$
S+L	$-1.110 \\ +NA \\ -NA$	$^{-2.287}_{\stackrel{+NA}{-NA}}$	$537.3 \\ {+NA} \\ {-NA}$	$^{-2.060}_{\stackrel{+NA}{-NA}}$			-0.902 $+NA$ $-NA$	$^{-7.526}_{-NA}$	440.96/-220.48/452.96/477.96	$\substack{1.257 \\ +0.033 \\ -0.033}$	$7.754 \\ \substack{+0.201 \\ -0.201}$	$1.129 \\ \substack{+0.029 \\ -0.029}$
G+B+L	$^{-1.092}_{\stackrel{+NA}{-NA}}$	$^{-2.317}_{\stackrel{+NA}{-NA}}$	$777.2 \\ {}^{+NA}_{-NA}$	$^{-2.039}_{\stackrel{+NA}{-NA}}$	$52.1 \\ ^{+NA} _{-NA}$	$^{+0.454}_{-NA}$	-0.616 + NA - NA	$-8.567 \\ +NA \\ -NA$	439.01/-219.50/455.01/488.35	$\substack{1.307 \\ +0.052 \\ -0.052}$	$\begin{array}{c} 8.065 \\ +0.323 \\ -0.323 \end{array}$	$\begin{array}{c} 1.174 \\ ^{+0.047} \\ ^{-0.047} \end{array}$
S+B+L	$^{-1.136}_{\substack{+NA \\ -NA}}$	-2.309 + NA - NA	$618.4 \\ {}^{+NA}_{-NA}$	$^{-2.089}_{\stackrel{+NA}{-NA}}$	$\begin{array}{c} 31.1 \\ ^{+NA} \\ ^{-NA} \end{array}$	-0.706 + NA - NA	$^{+0.467}_{-NA}$	$^{-9.176}_{\stackrel{+NA}{-NA}}$	439.10/-219.55/455.10/488.44	$\substack{1.292 \\ +0.041 \\ -0.041}$	$7.973 \\ \substack{+0.253 \\ -0.253}$	$\substack{1.161 \\ +0.037 \\ -0.037}$
C+L	-0.896 +0.060 -0.053		$608.3 \\ ^{+117.9}_{-95.9}$	-2.027 $+0.001$ -0.000			-1.728 $+0.034$ -0.029	-3.053 +0.086 -0.109	480.37/-240.19/490.37/511.21	$1.067 \\ \substack{+0.043 \\ -0.043}$	$\substack{6.585 \\ +0.267 \\ -0.267}$	$0.959 \atop \substack{+0.039 \\ -0.039}$
C+B+L	-0.862 $+0.115$ -0.099		$\begin{array}{c} 677.6 \\ +273.7 \\ -186.6 \end{array}$	-2.084 $+0.007$ -0.008	$27.9 \\ ^{+12.5} _{-5.9}$	-0.651 +0.264 -0.437	-1.756 $+0.037$ -0.030	-2.962 $+0.089$ -0.116	477.38/-238.69/491.38/520.55	$1.114 \\ \substack{+0.066 \\ -0.066}$	$\substack{6.871 \\ +0.404 \\ -0.404}$	$\substack{1.000 \\ +0.059 \\ -0.059}$
С	-1.041 $+0.023$ -0.022		$700.2 \\ ^{+91.5}_{-78.2}$	-1.998 +0.008 -0.008					612.13/-306.06/618.13/630.63	$1.099 \\ \substack{+0.048 \\ -0.048}$	$\substack{6.782 \\ +0.298 \\ -0.298}$	$0.987 \\ \substack{+0.043 \\ -0.043}$
С+В	-1.093 $+0.111$ -0.052		$820.8 \\ +366.8 \\ -205.4$	-2.039 $+0.035$ -0.006	$50.4 \\ +30.2 \\ -25.1$	-0.493 +0.305 -1.103			611.04/-305.52/621.04/641.88	$\substack{1.160 \\ +0.078 \\ -0.078}$	$7.158 \\ \substack{+0.481 \\ -0.481}$	$\substack{1.042 \\ +0.070 \\ -0.070}$

Table 3. XSPEC fit results for bn090328401 using GBM + LAT data and errors from the Error command.