GRBs spectra in optically thick expanding plasma shells model

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We suppose that nonthermal spectra of radiation in GRB are formed by optically thick spherical plasma shells that expand with relativistic velocities and cooling during their expansion. We created 5-parameters model of GRB spectra in this suppositions. 4 parameters are independent : initial tempereture, initial radius or distance to GRB source, initial Lorentz-factor and cooling factor. We fit the observed spectra of individual GRB from the current BATSE catalogue using BATSE detector responce matrix and BATSE team forward folding technique, developed by R. Preece, M.Briggs, R. Mallozzi and M. Brock in MSFC. We obtain that our model for GRB930326B and GRB930425B is same fit as Band model (chi square is comparable). We have found that both time integrated and time resolved spectra of some GRBs are well fitted by the model of optically thick expanding plasma shell (most of other models explain only one type of spectra). Also time evolution of our model parameters for some GRB which correspond some emitting regions characteristics is studied.