## Abstract Submitted for the TSF11 Meeting of The American Physical Society

Bc absorption cross sections by pions M.A.K. LODHI, Texas Tech U, FAISAL AKRAM, SHAHEEN IRFAN, Punjab U, Pakistan, SONAINA UNDLEEB, Texas Tech U — The cross sections of Bc absorption by mesons are calculated using hadronic Lagrangian based on SU(5) flavor symmetry by imposing the gauge symmetry. The coupling constants are preferably determined empirically using vector meson dominance (VMD) model, heavy quark symmetries or QCD sum rules. Calculated cross sections are found to be in range 2 to 7 mb and 0.2 to 2 mb for the processes and respectively, when the monopole form factor is included. It is noted that the cross section estimates are highly dependent on the choice of form factor and the value of cut off parameter aside from the values of coupling constants used. These results could be useful in calculating production rate of meson in relativistic heavy ion collisions.

M.A.K. Lodhi Texas Tech U

Date submitted: 13 Sep 2011 Electronic form version 1.4