UHECR ACCELERATION IN SEYFERT GALACTIC NUCLEI

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The model of particle acceleration up to energies E=160 J (10^21 eV) in Seyfert nuclei is presented. Particles are accelerated in hot spots of relativistic jets, which damp in dense stellar kernel at distances (1-9)10^16 m (1-3 ps)from the centre. The energy and chemical composition of accelerated particles depend on the value of magnetic field B in jets. If B~(5-1000)G nuclei with charges Z>1 attain energy E>16 J (10^20 eV),namely: He nuclei (Z=2) get the maximum energy E=24 J (1.5 10^20 eV) in the field B=40 G; Fe nuclei (Z=26)are accelerated up to E=128 J (8 10^20 eV) if the field is B=16 G. In the field B~1000 G only heavy particles with Z>=23 can be accelerated to E=16 J (10^20 eV). Curvature and radiation losses of accelerated particles are shown to be small. Energy losses in infrared photons fields are negligible if galactic luminosity is L<10^39 J/s (10^46 erg/s).