

Mass composition of cosmic rays with energies above $3 \cdot 10^{15}$ eV according to the data of the small Cherenkov array

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According to the long-term registration data from the small Cherenkov array of integral and Cherenkov differential detectors obtained the characteristics of air showers with energies above $3 \cdot 10^{15}$ eV, including of the maximum of the development of the X_{max} . The dependence of X_{max} on the shower energy found and the characteristics of air showers compared with the QGSjetII-04 model. From a comparison of X_{max} with calculations based on the QGSjetII-04 model for a proton and an iron nucleus, a conclusion obtained on the mass composition of cosmic rays in the energy range $3 \cdot 10^{15} - 2 \cdot 10^{18}$ eV.

Primary author: MOKHNACHEVSKAYA, Valentina (SHICRA SB RAS)

Co-authors: KNURENKO, Stanislav (SHICRA SB RAS); PETROV, Igor (SHICRA SB RAS)

Presenters: MOKHNACHEVSKAYA, Valentina (SHICRA SB RAS); KNURENKO, Stanislav (SHICRA SB RAS)

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