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Secondary cosmic ray nuclei in the light of the Single Source Model

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Evidence for a local Single Source of cosmic rays is amassing by way of the recent precise measurements of various cosmic ray energy spectra from the AMS-02 experiment. To observations of individual cosmic ray nuclei, electrons, positrons and antiprotons must now be added the determination of the boron-to-carbon ratio and the energy spectrum of lithium to 2000 GV with high precision. Our analysis leads us to claim that, with certain assumptions about propagation in the Galaxy, the results confirm our arguments regarding the presence of a local single source, perhaps, the supernova remnant (SNR). An attempt is made to determine some of the properties of this SNR and its progenitor star.

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