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Early Cretaceous absolute geomagnetic paleointensities from Córdoba Province (Argentina)

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We present here new paleointensity and geochronology results from Early Cretaceous volcanics of Sierra Chica de Cordoba (Argentina). The new K-Ar isotopic ages of 5 samples range from 136 to 122 Ma. Twenty five samples from 7 individual flows yielded acceptable paleointensity estimates. The mean paleointensity values per flow are ranging from 53.0 to 25.4 mT and the corresponding Virtual Dipole Moments (VDMs) are ranging from 9.3 to 4.6 (1022 Am2). This correspond to the mean value of 7.3 (1.7) x 1022 Am2, which is compatible to the present geomagnetic axial dipole. Currently available selected paleointensity data from 130 to 80 Ma suggest that geomagnetic field strength frequently fluctuated before and during the Cretaceous Normal Superchron while the magnetic polarity maintained stable. The mean paleointensities derived from Córdoba lavas agree remarkably well with those obtained from the Parana Magmatic Province (132-132 Ma). This reinforces the hypothesis about the unreliability of 'Mesozoic Dipole Low'.