

Continuous and Coherent radio emission from the magnetospheres of MCP stars

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About 25% of Magnetic Chemically Peculiar stars show evidence of nonthermal radio continuum emission. The characteristics of the radio emission are interpreted in terms of gyrosynchrotron emission from mildly relativistic electrons accelerated in the current sheets out of the Alfvén radius and continuously injected back in the stellar magnetosphere. We present the results of multi frequency radio observations of a sample of MCP stars covering the whole rotational period, together with a three dimensional model able to reproduce the data. In addition, the Electron Cyclotron Maser Emission observed in CU Virginis at particular rotational phases, persistent over years, and the rapid spindown that can be deduced are discussed.