



Exoplanet magnetic field: possible marker of habitability

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The intrinsic magnetic field shielding the planetary surface from most of space radiation is one of indicator on possible habitability of exoplanet. A search of exosolar terrestrial-like planets possessing the magnetic fields and developed magnetospheres seems to be the most intriguing objective of exoplanet studies. The interaction of planetary magnetosphere with the star wind results in generation of radioemissions (similar to AKR radiation of the terrestrial magnetosphere) which allows remote sensing of exoplanet magnetic field. However, frequency range of waves expected from terrestrial-like exoplanet is below, roughly, 10 MHz and, thus, these radioemissions can be hardly investigated by ground facilities due to conducting Earth's ionosphere. The Moon possessing a weak atmosphere/ionosphere around its surface seems to be a perfect base for carrying out measurements of low frequency radio emissions originated from the space. The paper presents approaches to antenna design and a scenario of radio facility deployment at Moon's surface which is aimed on terrestrial-like planet search in exosolar system.