NEAR-INFRARED DIODE LASER SPECTROSCOPY OF THE A–X SYSTEM OF N_2^+ IN THE 1.2 - 1.3 μm REGION

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Since Meinel's identification during the auroral storm in 1950[a], the $A^2\Pi_u \leftarrow X^2\Sigma_g^+$ Meinel system has been studied by a great number of spectroscopists in the wavelength region from 541 nm to 4.6 μm providing information from 27 bands. Two new bands, the (3,3) and (4,4) bands, of the Meinel system of N_2^+ were observed using a near-infrared diode laser and the velocity modulation technique. A comprehensive analysis of the newly observed bands will be presented.

[a] A. Meinel, *Astrophys. J.* **112**, 562 (1950) and **114**, 431 (1951).