THE B-X TRANSITION OF B¹⁸O

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The B-X bands of two isotopic species $^{11}B^{18}O$ and $^{10}B^{18}O$ have been observed for the first time. The bands were developed in emission from a low-pressure arc running in an atmosphere of the mixture of argon and oxygen 18 enriched up to 90 atom %. Twelve bandheads between 220 and 300 nm have been measured and vibrationally assigned. The bands 1-0, 0-0 and 0-1 have been recorded under high dispersion and rotationally analyzed. Using determined molecular constants, Franck-Condon factors have been calculated and compared with visually estimated intensities of the bands. Full analyses of the bands will be presented.