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Oscillator Strengths for $2s^2$-$2p^2P$ Transitions of the Lithium Isoelectronic Sequence from NaIX to CaXVIII

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Abstract: The nonrelativistic dipole-length, -velocity and -acceleration absorption oscillator strengths for the $1s^22s$-$1s^22p$ transitions of the lithium isoelectronic sequence from Z=11 to 20 are calculated by using the energies and the multiconfiguration interaction wave functions obtained from a full core plus correlation (FCPC) method. In most cases, the agreement between the oscillator strengths values from the length and velocity formula is up to four or five digit. Our results are also in good agreement with previous theoretical data available in the literature.

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Key words: oscillator strengths, lithium isoelectronic sequence, full core plus correlation method

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