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• The lowest four energy levels of the He<sup>+</sup> ion are given.

Principal quantum number (n)	Energy (J)
1	$-8.720 \times 10^{-18}$
2	$-2.180 \times 10^{-18}$
3	$-0.969 \times 10^{-18}$
4	$-0.545 \times 10^{-18}$

An electronic transition is identified by specifying the value of n of the initial state and the value of n of the final state. Identify the electronic transition responsible for the emission of radiation from He<sup>+</sup> with a wavelength of 121.5 nm?