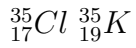


Chapter 38 Problem 15 †

**Given**



**Solution**

a) Compare the number of nucleons.

The number of nucleons is the same for each isotope. Each has a combination of 35 protons and neutrons.

b) Compare the nuclear charge.

The chlorine has 17 protons and, therefore, has a charge of 17 times  $1.6 \times 10^{-19} \text{ C}$ . The potassium has 19 protons and has a charge of 19 times  $1.6 \times 10^{-19} \text{ C}$ .

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†Problem from Essential University Physics, Wolfson