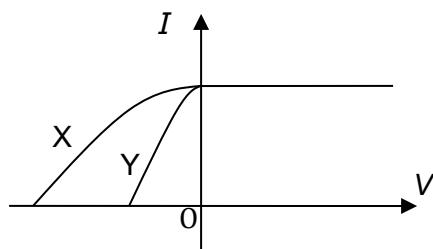


- 27** In a photoelectric effect experiment, a metallic surface X in an evacuated tube is illuminated with light of wavelength 275 nm causing the emission of photoelectrons which are collected at an adjacent electrode.

The experiment is repeated by replacing metallic surface X by another metallic surface Y.

The variation of photocurrent  $I$  with the potential difference  $V$  between each of the metallic surfaces and the adjacent electrode is shown in the diagram below.



The table below lists the work functions of some elements.

Element	Work Function (eV)
Sodium	2.7
Aluminium	4.3
Copper	4.7

What materials are the metallic surfaces X and Y made of?

	metallic surface X	metallic surface Y
<b>A</b>	copper	copper
<b>B</b>	copper	aluminium
<b>C</b>	sodium	aluminium
<b>D</b>	sodium	copper

