8 Rainbow printing

A special type of printing that ensures there is a smooth transition among the main colors of the image, avoiding breaks and displacements.





9 Microlettering

Repeated legends that can be read under a magnifying glass.











10 Serial numbers

Printed in relief printing:

- horizontally in red ink;
- and vertically (with the numbers having a variable height) in black ink.



0 0

Anti-scan/anti-copy pattern

Made of fine, multi-shaped lines that impede the reproduction of the images by copying or scanning equipment, which will produce a moiré pattern.



Ultraviolet feature







Under an ultra-violet light, security fibers that are scattered randomly in the paper and invisible in daylight, glow red and green.



Under an ultra-violet light, portions of a polymer security thread, which is fully embedded in the paper, glow yellow and light blue.

Infrared feature





National Bank of Ukraine

50 Hryvnia Banknote designed in 2019



The main image on the front of the note is a portrait of **MYKHAILO HRUSHEVSKY**

front of the note

Mykhailo Hrushevsky (1866 – 1934) was one of the most prominent figures of the 20th century in Ukraine. He shaped Ukrainian history both as the author of the multi-volume *History of Ukraine-Rus*, and as a civic and political activist and chair of the Central Council.



The core design element of the back of the note is an image of the CENTRAL

COUNCIL BUILDING

back of the note

This building was constructed in 1911 on Volodymyrska Street in Kyiv to a design by the famous Kyiv architect Pavlo Alioshyn. It was in this building that the Central Council in 1917 adopted its universals, declaring the sovereignty of the Ukrainian state.

SECURITY FEATURES

The banknote is printed on tinted magenta paper, which is the dominant color of the banknote images. The banknote is sized 72x136 mm



1 Watermarks

The multi-tone watermark is a repeated portrait of Mykhailo Hrushevsky formed by paper fibers in different shades (lighter and darker than the paper); the light watermark element is the numerical indication of the denomination (vertical, in the right bottom part of the multi-tone watermark).



2 Optically variable element

A stylized image of a flag to the right of the portrait of Mykhailo Hrushevsky. When the banknote is tilted, the color of the flag changes from crimson-purple to olive-green.





3 Security thread

A polymer stripe that has a magnetic code and is fully imbedded into the paper on which the words "50 ΓΡΗ", an element of Ukraine's small coat of arms (the trident), and the numeral "50" can be seen as direct and inverse images under a magnifying glass.



4 Latent image

When the note is held at a sharp angle to the light at eye level, the numerals become visible:

- they appear dark against a light background when the note is looked at from the long side;
- and light against a dark background when the note is looked at from the short side.







b'amgecam yubeni

5 Relief features

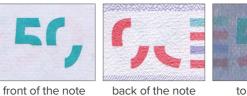
These are elements on the front of the note that are rough to the touch. For better visibility, these elements have been enlarged:

- a) legends and images;
- b) feature for the partially sighted;
- c) a fragment of the portrait.



6 See-through register

When the note is held up to the light, irregular shapes printed on the back and front combine to form the banknote's denomination



back of the note to the light

10

7 Orlov printing

A special type of printing that ensures there is an abrupt change of one color into another, without breaking and shifting.



