

9. Rainbow printing - special printing ensuring the gradual transition of one color into another without ruptures and displacements of the image elements.







12. Copy-evident pattern thin lines of different geometric shapes that form a moire pattern when copied or scanned.



inscriptions that can be read only with magnifying glass.



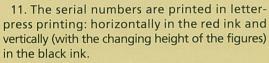
Security fibers - chaotically placed fibers unseen in daylight, which glows in red and green in the UV light.





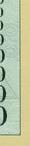




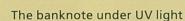




Fully embedded parts of security polymer thread glow yellow and light blue in the UV light.











The banknote under IR light



Front



Back

#### NATIONAL BANK OF UKRAINE

# On 1 September 2016, the 20 hryvnia Commemorative banknote of 2016 design put into circulation

### On the banknote front side there is a portrait of Ivan Franko.

Ivan Franko (1856 – 1916) was a prominent Ukrainian writer, critic, translator, opinion journalist, sociologist, ethnographer, historian and philosopher, whose activities were guided by the idea of promoting the interests of Ukrainians and universal human values. Being a unique phenomenon, his works represent an entire spiritual epoch in Ukrainian history and a significant contribution to world literature.



On the back side there is the image of the Lvyv Opera House.

Lvyv Opera House was built in 1900 by the design of architect Z. Gorgolevsky.

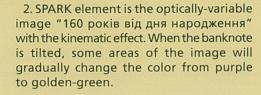
## Security features

The banknote is printed on the tinted paper of greenish color, which is the dominant color of the images on the banknote. Size of the banknote – (69x130) mm.





1. Watermarks (visible when the banknote is held up to the light): a multi-tone watermark is a repeated Ivan Franko's portrait formed by the paper internal texture in different tones; light watermark element represents denomination figures (placed horizontally in the lower right part of the multi-tone watermark).



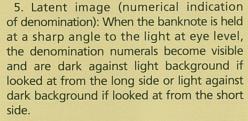




3. Security thread the embedded polymer strip with the images of "20 FPH", the trident and the denomination "20" in two lines, which are visible (normal and reverse images) through the magnifying glass.



4. Window thread is a green polymer thread with diagonal white lines partially embedded in the paper with the pronounced kinematic effect. When the banknote is tilted, the background image moves in the opposite direction.









6. Relief images are graphic images on the banknote front which as a result of raised printing feel rough to the touch, as in the following examples: a) inscriptions and images; b) the sign for the partially sighted; c) a fragment of the portrait.



7. See-through element - the image of the denomination numerals that supplement each other and form the full image when the banknote is held up to the light.



8. Orloff printing – special printing ensuring the abrupt transition of one color into another without ruptures and displacements of the image elements.



