

Természettudományok a restaurátorműhelyben





Festő restaurátor



Szilikát



Fa



Papír



Textil



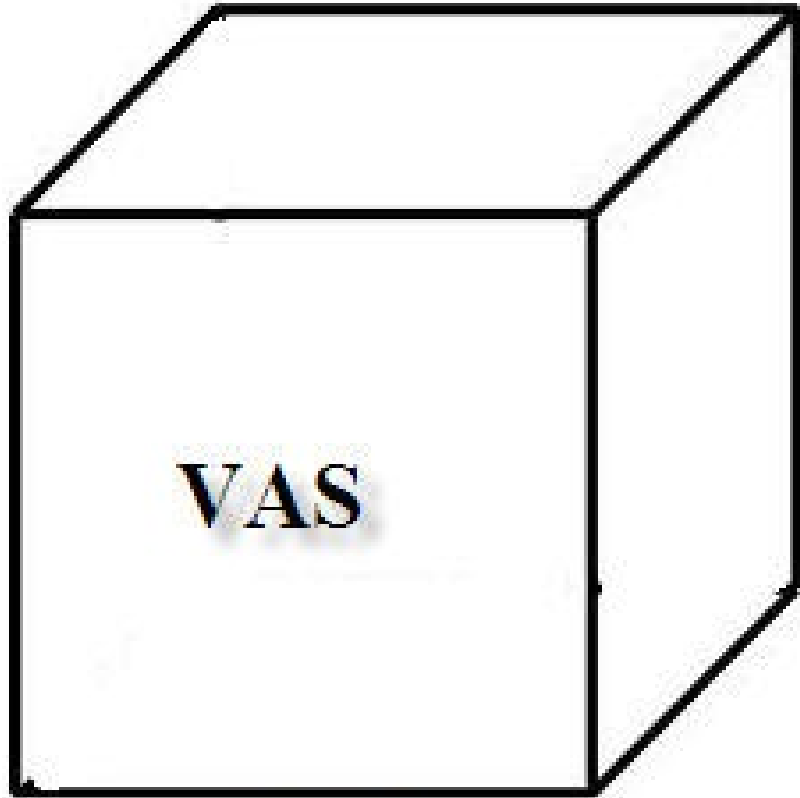
Fém





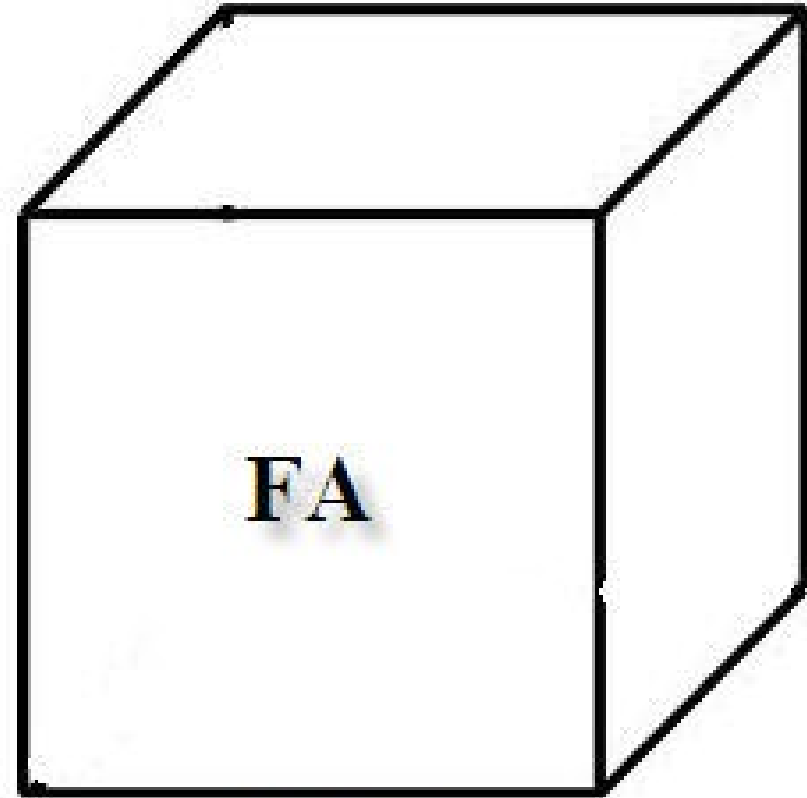
ALLAMI GYMNASIUM
ΣΥΜΒΟΥΣ Α ΚΟΖΟΥΚΤΑΣΝΑΚ

Sűrűség számítás



$$m = 7800 \text{ kg}$$
$$V = 1 \text{ m}^3$$

$$\rho = 7800 \frac{\text{kg}}{\text{m}^3}$$



$$m = 800 \text{ kg}$$
$$V = 1 \text{ m}^3$$

$$\rho = 800 \frac{\text{kg}}{\text{m}^3}$$





$$d = 2 \times \sqrt{\frac{\text{tömeg}}{\text{hossz} \times \text{"szorzó"} \times \pi \times \text{sűrűség}}}$$

$$d = 2 \times \sqrt{\frac{20\text{g}}{50\text{cm} \times 14 \times \pi \times 13,5\text{g/cm}^3}}$$

$$d = 0,0519103734\text{cm}$$







10,8
5 **B**



12,0
6 **C**



27,0
13 **Al**



28,1
14 **Si**



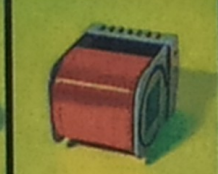
55,8
26 **Fe**



58,9
27 **Co**



58,7
28 **Ni**



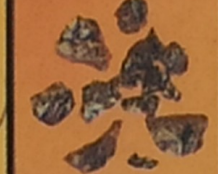
63,5
29 **Cu**



65,4
30 **Zn**



69,7
31 **Ga**



72,6
32 **Ge**



101,1
44 **Ru**



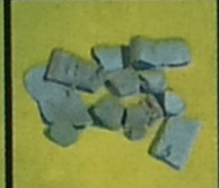
102,9
45 **Rh**



106,4
46 **Pd**



107,9
47 **Ag**



112,4
48 **Cd**



114,8
49 **In**



118,7
50 **Sn**



190,2
76 **Os**



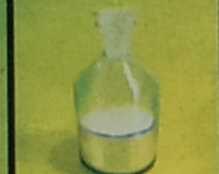
192,2
77 **Ir**



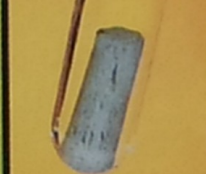
195,1
78 **Pt**



197,0
79 **Au**



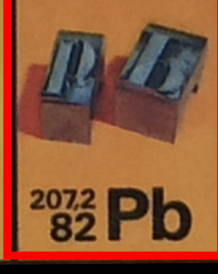
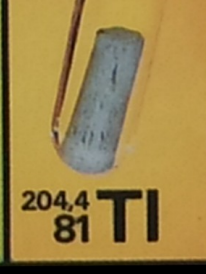
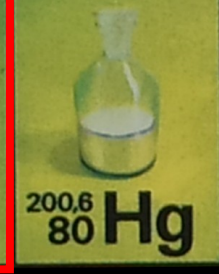
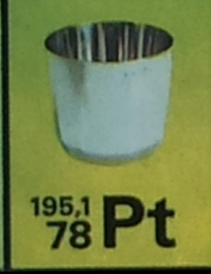
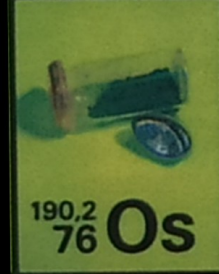
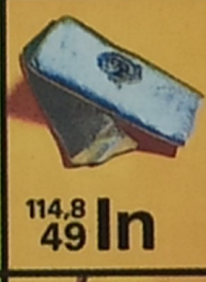
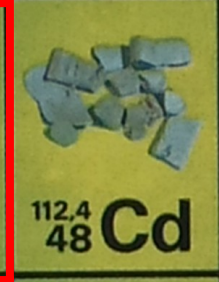
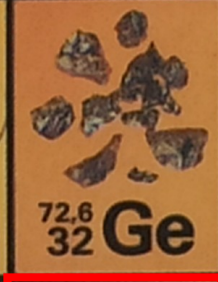
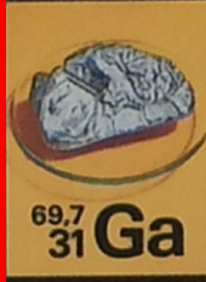
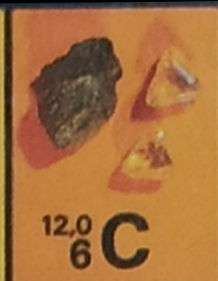
200,6
80 **Hg**




204,4
81 **Tl**



207,2
82 **Pb**




Sűrűség értékek g/cm³-ben

						 10,8 5 B	 12,0 6 C
						 2,7 13 Al	 28,1 14 Si
 7,87 55,8 26 Fe	 58,9 27 Co	 58,7 28 Ni	 8,96 63,5 29 Cu	 7,14 65,4 30 Zn	 69,7 31 Ga	 72,6 32 Ge	
 101,1 44 Ru	 102,9 45 Rh	 106,4 46 Pd	 10,49 107,9 47 Ag	 112,4 48 Cd	 114,8 49 In	 7,26 118,7 50 Sn	
 190,2 76 Os	 192,2 77 Ir	 195,1 78 Pt	 19,3 197,0 79 Au	 200,6 80 Hg	 204,4 81 Tl	 11,34 207,2 82 Pb	




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101,1
44 **Ru**



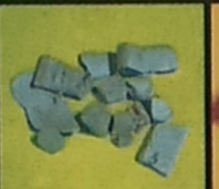
102,9
45 **Rh**




106,4
46 **Pd**




107,9
47 **Ag**




112,4
48 **Cd**



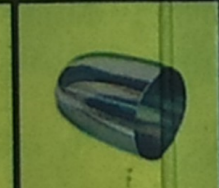
114,8
49 **In**




118,7
50 **Sn**



190,2
76 **Os**



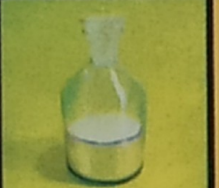
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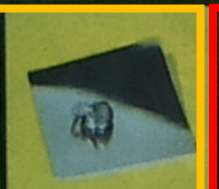
72,6
32 **Ge**



101,1
44 **Ru**



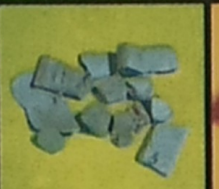
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107,9
47 **Ag**




112,4
48 **Cd**



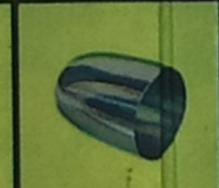
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118,7
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190,2
76 **Os**



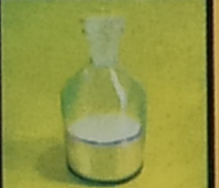
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77 **Ir**



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78 **Pt**




197,0
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200,6
80 **Hg**



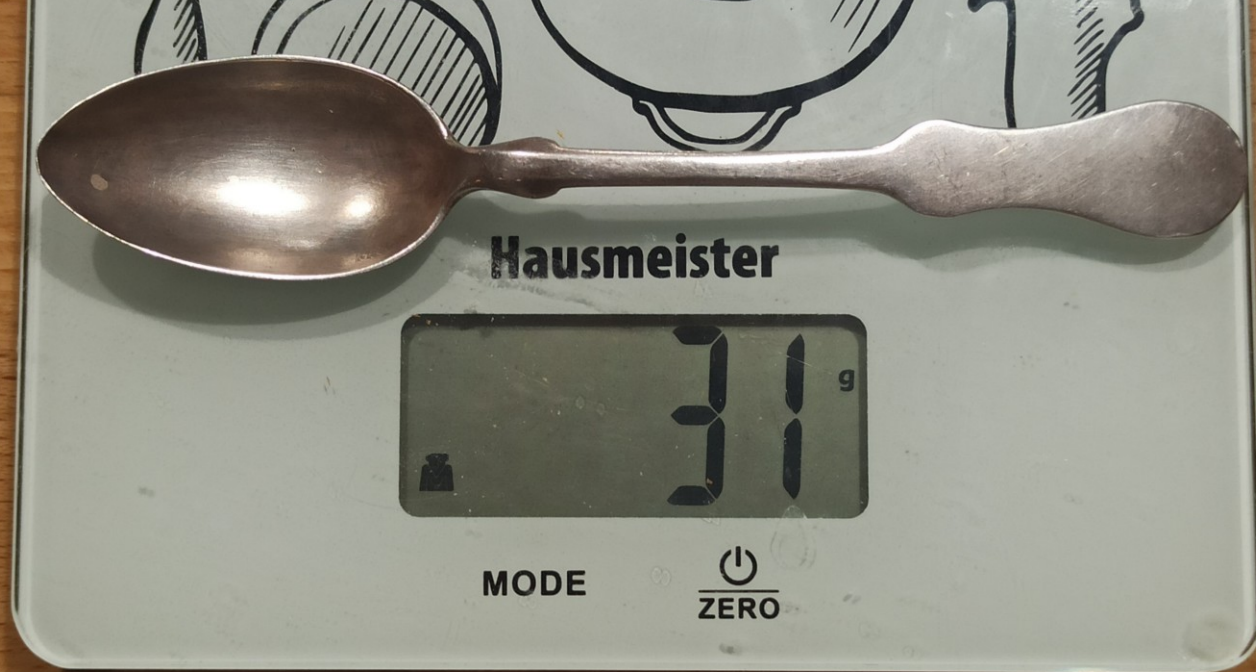
204,4
81 **Tl**



207,2
82 **Pb**

Ezüst és alpakka kiskanalak





Ag: $\rho = 10,49 \text{ g/cm}^3$



Cu: $\rho = 8,96 \text{ g/cm}^3$



Római kori vas szék



**Filigrán
oltárkereszt**

Ezüst lószerszámveret



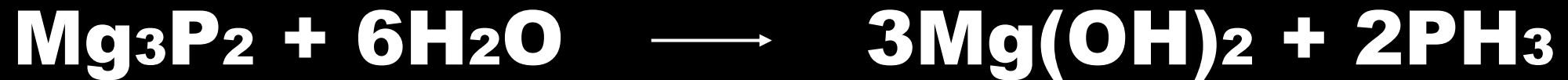
Rezgő hajtű töredék



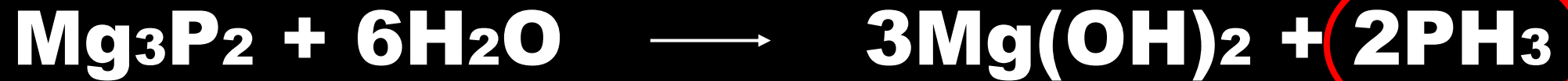


A raktárépület egyik helysége

MAGTOXIN®



MAGTOXIN®

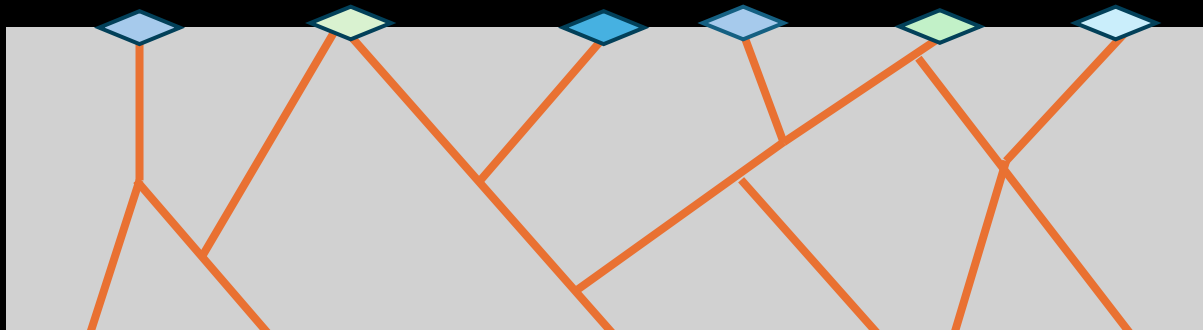




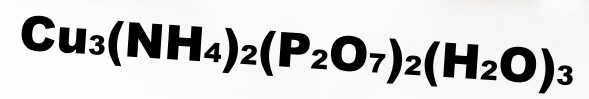
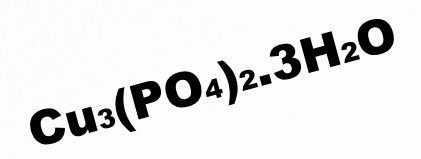
RÉZ



EZÜST



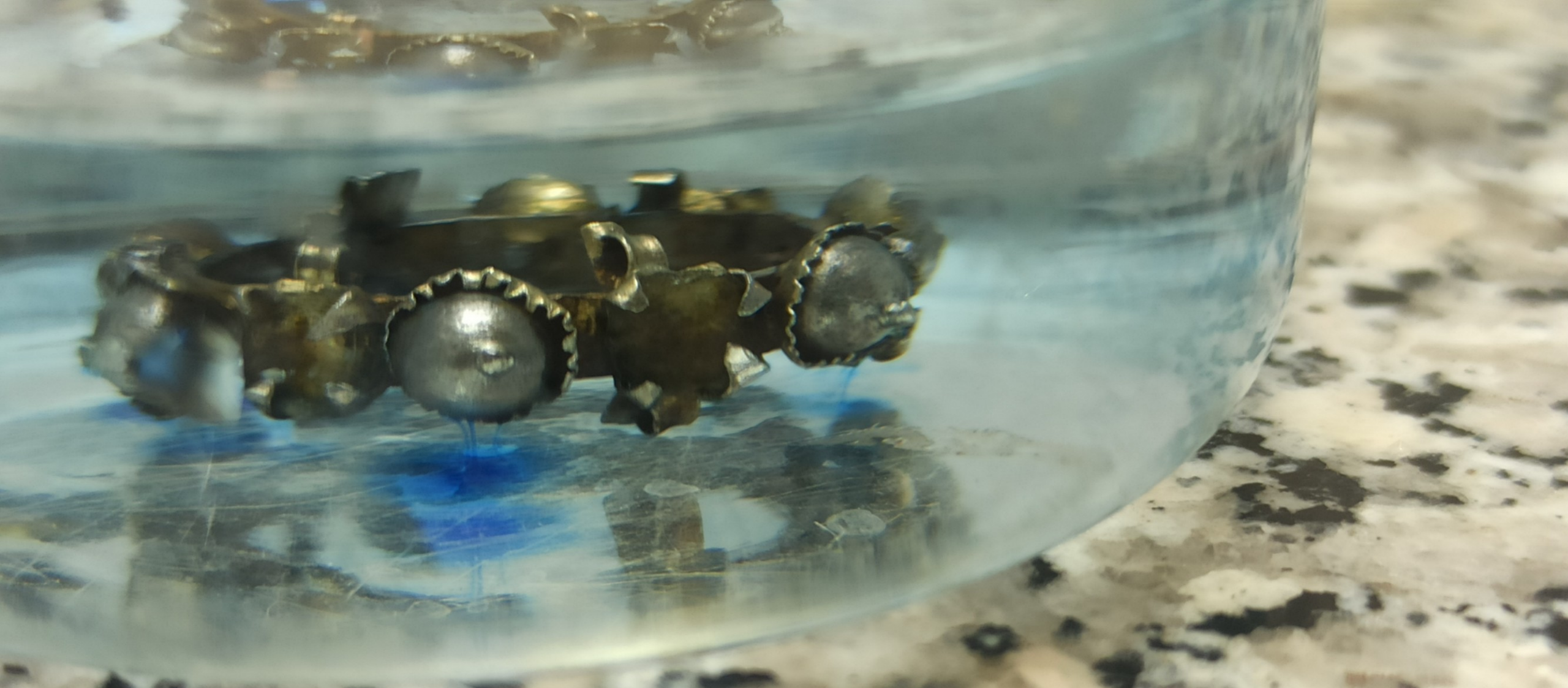
EZÜST





Selecton B2 (EDTA)

3%-os foszforsav



30%-os ammónium-hidroxid





Çiğdem 00/6 -
Gözetim no 401705
Etiler 100 a





445 °C

55.0 °C
MIN MAX
AUTO

50 mb

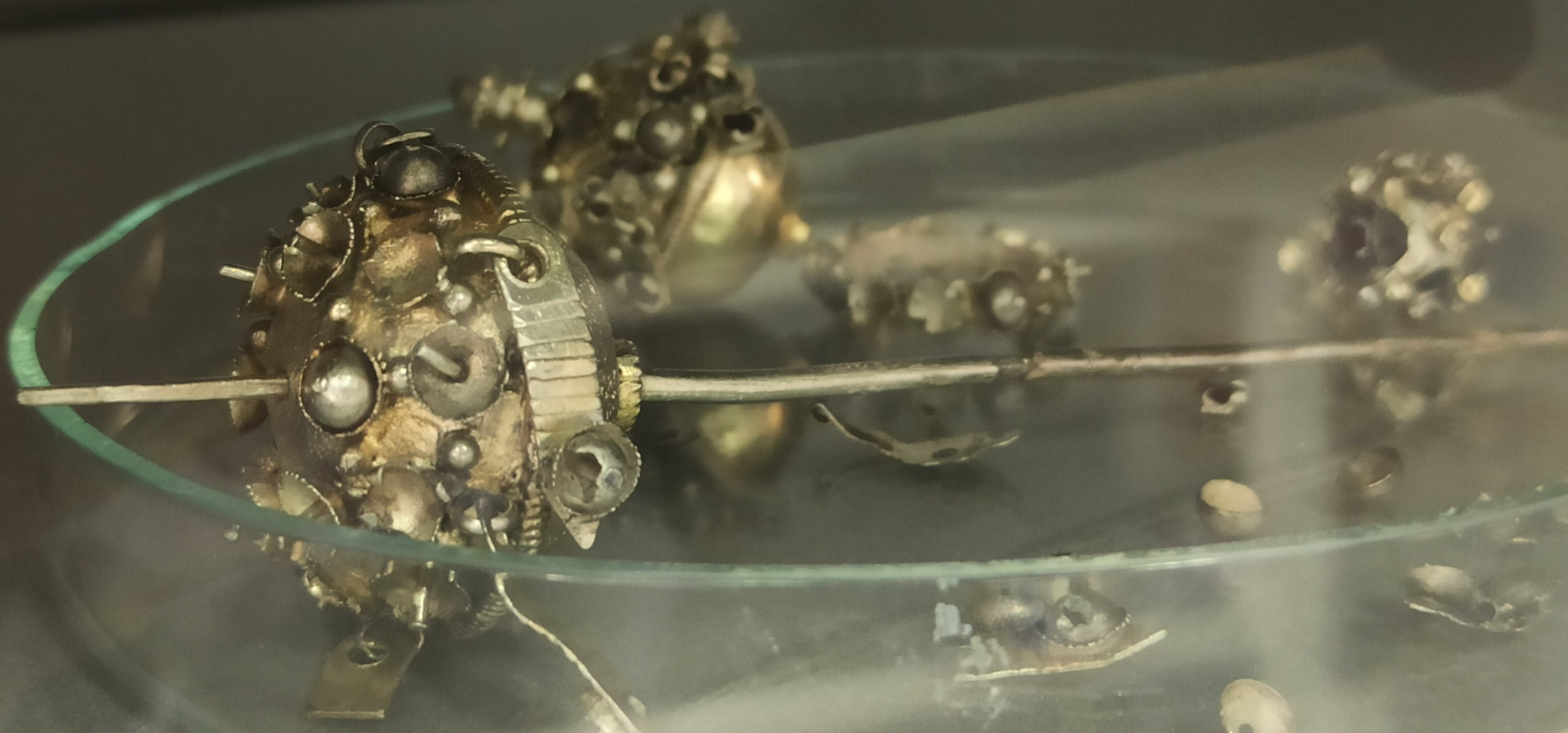
memmert

set

on
off

push card

A white rotary knob is positioned on the left, with 'on' and 'off' labels. To its right is a horizontal slot labeled 'push card'.





Restaurálás előtt

Restaurálás után





Magyaros viselet ezüst kiegészítője



Köszönöm a figyelmet!