

Result:

1. Assuming intensity of light corresponds with amplitude of light waves explains result 2, but not results 1 and 3.
2. If light comes in quanta with energy per quantum = $h\nu = hc/\lambda$, and if it requires a certain quantity of energy to expel an electron from a metal surface then all three observations can be explained. (Write your explanation before clicking "solution" to see ours.)
3. Minimum energy is 3.7×10^{-19} J.
4. The assumption that some minimum quantity of energy is required to eject an electron from a metal surface can be tested by trying different metals. All metals should have some minimum frequency below which electrons are not ejected (or maximum wavelength above which electrons are not ejected).