

Figure 1S: Qualitative depth profiles of Zn electroplated coating (after thermal treatment) measured at different pulse durations.

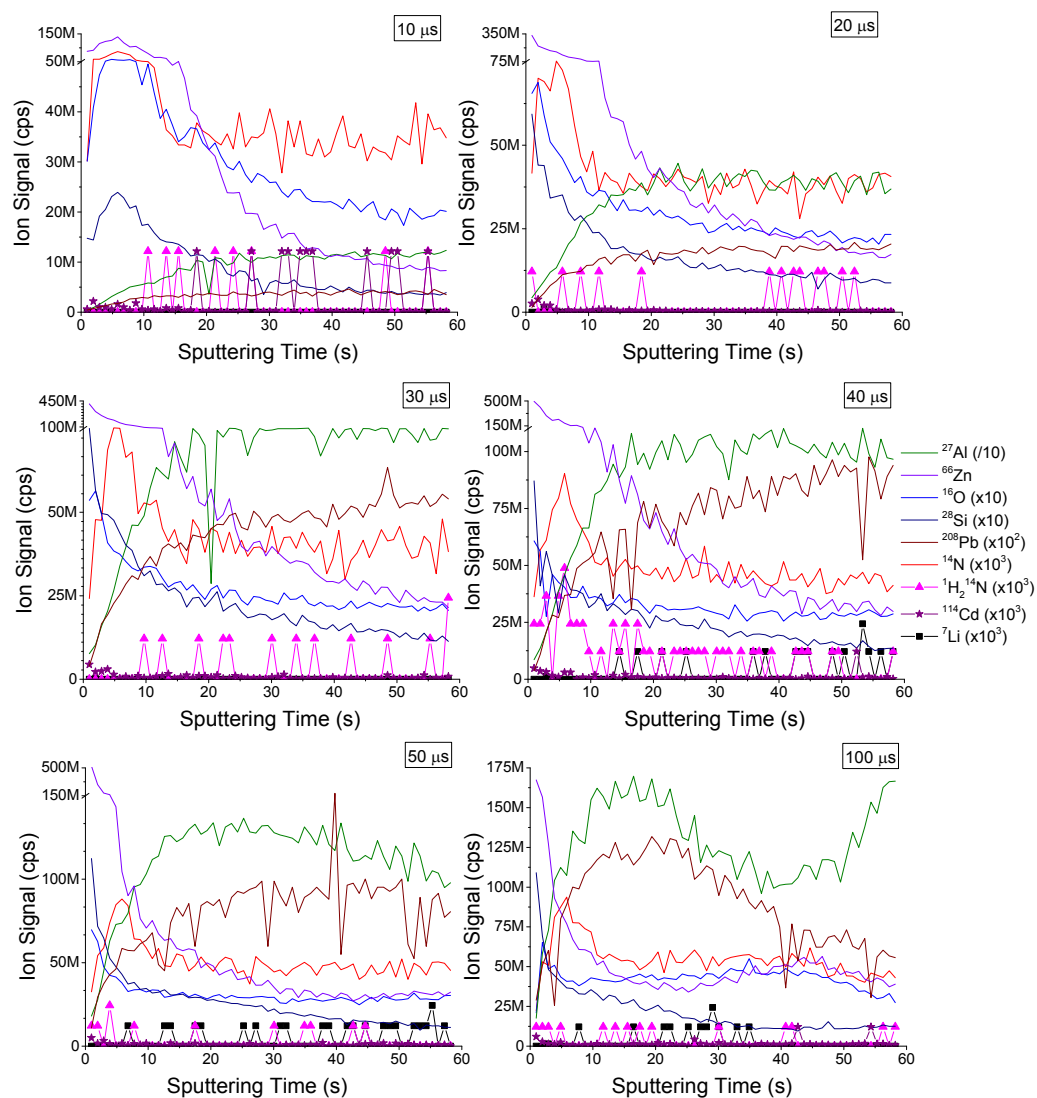


Figure 2S: Qualitative depth profiles of Zn electroplated coating (after thermal treatment) measured at different pulse frequencies.

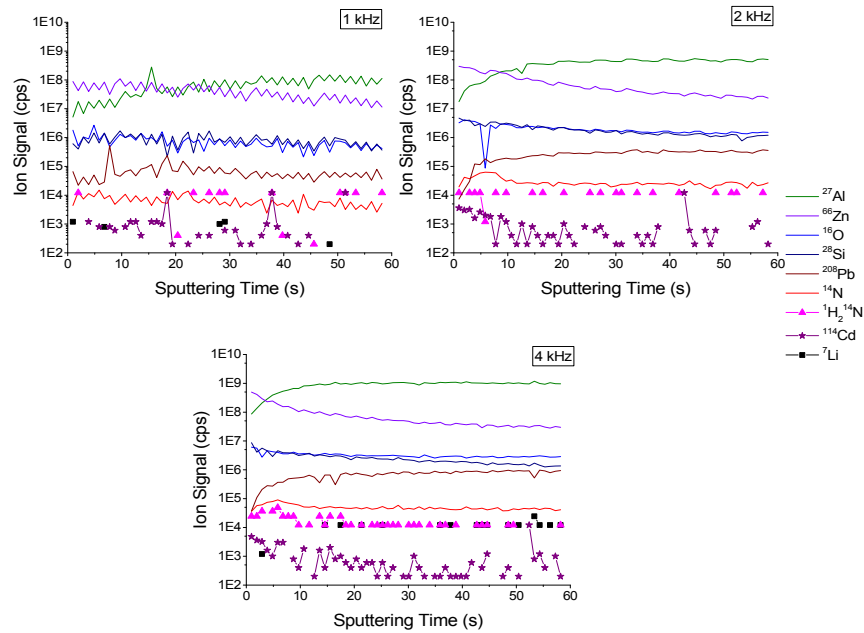


Figure 3S: Qualitative depth profiles of the whole Zn electroplated coating after thermal treatment, measured with different flow tube lengths (16, 17 and 18 mm, respectively).

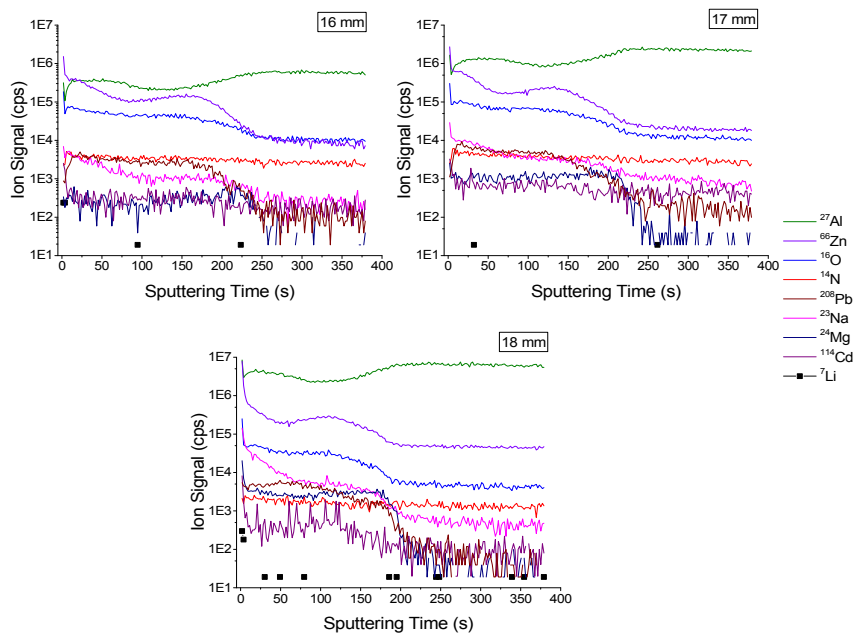


Figure 4S: Crater profile measured after sputtering for 350 s using the following μs -pulsed-GD operating conditions: 40 μs pulse width; 4 kHz pulse-frequency; 1000 V; Ar 0.34 L $\cdot$ min $^{-1}$

