**Table 1: Electrodeposition of the AgPd alloys to *Q*d = - 0.2, -1.0 and -1.5 C cm-2 at ω = 0 rpm and various current densities (*j*d) from the solution:**

**0.001 M PdCl2 + 0.04 M AgCl + 0.1 M HCl + 12 M LiCl.**

**Dissolution (ALSV) in the solution 0.1 M HCl + 12 M LiCl at RPM=1000 with a sweep rate of 1 mV s-1.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | *j*d/µA cm-2 | *Q*(Pd)ALSV  /C cm-2 | *Q*(Ag)ALSV  /C cm-2 | *η*j /%  *Q*ALSV/*Q*d | ALSV | | XPS | | EDS | | *Q*(UP)ALSV/% |
| at.% Pd | at.% Ag | at.% Pd | at.% Ag | at.% Pd | at.% Ag |
| *Q*d = -0.2 C cm-2 | | | | | | | | | | | |
| (1) AgPd1 | 178 | 0.088 | 0.093 | 90 | 24 | 76 | 27.4 | 72.6 | 16.2 | 83.8 | 0 |
| (2) | 296 | 0.059 | 0.139 | 96 | 12 | 88 |  |  |  |  | 15.7 |
| (3) AgPd2 | 415 | 0.042 | 0.154 | 98 | 8 | 92 | 13.4 | 86.6 | 9.8 | 90.2 | 10.2 |
| *Q*d = -1.0 C cm-2 | | | | | | | | | | | |
| (4) | 296 | 0.290 | 0.700 | 99 | 12 | 88 |  |  |  |  | 17.2 |
| *Q*d = -1.5 C cm-2 | | | | | | | | | | | |
| (5) | 296 | 0.469 | 1.018 | 99 | 13 | 87 |  |  |  |  | 27.6 |

*j*L(Pd) = -59.18 µA cm-2