Table and Figures Captions

**Table1:** ICP operating conditions

Table2: Effect of TOA% on palladium extraction in different solvents.

Table3: Effect of different stripped agents

Figure1: Effect of TOA% on palladium extraction in different solvents (a: toluene, b: xylene, c: crosin and d: 1, 2 dichloroethane).

**Figure2:** Variation of the palladium (Ⅱ) extraction with the HCl concentration (200 ppm Pd (Ⅱ) in 0.05-8 M; 2.5% TOA in toluen; A: O (v/v) = 1; room temperature; 10 min).

**Figure3:** The effect of HClO4 concentration on stripping

Figure4: The effect of H2SO4 concentration on stripping

**Figure5:** The effect of NH3 concentration on stripping

Table 1: ICP operating conditions

|  |  |
| --- | --- |
| Plasma view | axial |
| Analysis time | 0.5 s |
| Plasma gas flow rate | 150 L / min |
| Sample flow rate | 1.5 mL / min |

Table 2: Effect of TOA% on palladium extraction in different solvents.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TOA% | T ( min ) | toluene % | xylene % | crosin % | 1, 2 dichloroethane % |
| 1  2.5  5  10 | 5 | 99.997  99.998  99.998  99.998 | 99.996  99.998  99.998  99.998 | 99.995  99.996  99.996  99.994 | 99.997  99.998  99.998  99.998 |
| 1  2.5  5  10 | 10 | 99.998  99.999  99.998  99.998 | 99.997  99.998  99.998  99.998 | 99.995  99.996  99.996  99.994 | 99.998  99.998  99.998  99.998 |
| 1  2.5  5  10 | 15 | 99.999  99.999  99.998  99.998 | 99.997  99.998  99.998  99.998 | 99.995  99.996  99.996  99.995 | 99.998  99.998  99.998  99.998 |

Table 3: Effect of different stripped agents

|  |  |
| --- | --- |
| % Extraction | Stripping agents |
| 1.85  96  99  100 | 1 M NH3  3 M NH3  5 M NH3  8 M NH3 |
| 0.02  0.02  0.02  0.02 | 1 M HClO4  3 M HclO4  5 M HclO4  8 M HclO4 |
| 0.02  0.075  0.02  0.02 | 1 M H2SO4  3 M H2SO4  5 M H2SO4  8 M H2SO4 |

|  |  |
| --- | --- |
| TOA%  Extraction % | **a**  **b**  TOA%  Extraction % |
| TOA%  Extraction % | **d**  **c**  TOA%  Extraction % |

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