**Table 2:** Microphotographs and measured stoichiometry for (CuInSe2)1-x (TaSe)x alloys with x = 0.1, 0.2, 0.3, 0.4 and 0.5. In red the nominal stoichiometry.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Microphotographs** | **Nominal Composition** | **Cu**  **at%** | **In**  **at%** | **Se**  **at%** | **Ta**  **at%** |
|  | **x = 0.1** | **23.7** | **23.7** | **50.0** | **2.6** |
| Exp. 1 | 22.7 | 17.7 | 58.8 | 0.8 |
| Exp. 2 | 21.7 | 18.1 | 59.4 | 0.8 |
| Exp. 3 | 22.1 | 18.4 | 58.3 | 1.2 |
| Exp. 4 | 21.1 | 16.7 | 60.4 | 1.7 |
| Exp. 5 | 21.9 | 17.8 | 59.2 | 1.2 |
|  | **X = 0.2** | **22.2** | **22.2** | **50.0** | **5.6** |
| Exp. 1 | 20.2 | 18.1 | 59.1 | 2.5 |
| Exp. 2 | 16.4 | 13.5 | 61.1 | 9.0 |
| Exp. 3 | 16.4 | 12.5 | 62.1 | 9.0 |
| Exp. 4 | 20.1 | 16.1 | 60.7 | 3.1 |
| Exp. 5 | 20.2 | 17.1 | 59.9 | 2.8 |
|  | **X = 0.3** | **20.6** | **20.6** | **50.0** | **8.8** |
| Exp. 1 | 16.8 | 12.5 | 60.2 | 10.5 |
| Exp. 2 | 14.8 | 11.9 | 61.0 | 12.3 |
| Exp. 3 | 22.3 | 15.6 | 53.2 | 8.7 |
| Exp. 4 | 28.7 | 17.3 | 55.6 | 6.4 |
| Exp. 5 | 20.7 | 14.4 | 57.5 | 9.5 |
|  | **X = 0.4** | **18.8** | **18.8** | **50.0** | **12.5** |
| Exp. 1 | 12.5 | 19.5 | 54.6 | 12.5 |
| Exp. 2 | 16.8 | 18.6 | 57.3 | 7.3 |
| Exp. 3 | 17.3 | 20.1 | 57.6 | 5.0 |
| Exp. 4 | 18.8 | 21.1 | 58.0 | 2.1 |
| Exp. 5 | 16.7 | 19.8 | 56.9 | 6.7 |
|  | **X = 0.5** | **16.7** | **16.7** | **50.0** | **16.7** |
| Exp. 1 | 11.8 | 3.6 | 65.6 | 19.1 |
| Exp. 2 | 18.8 | 14.3 | 59.0 | 7.9 |
| Exp. 3 | 21.3 | 13.2 | 61.3 | 4.3 |
| Exp. 4 | 22.3 | 16.0 | 59.7 | 2.1 |
| Exp. 5 | 20.8 | 14.5 | 60.1 | 4.6 |