measurements down to λ1872·94, but his results do not correspond closely with those given below. This may be due to the fact that he used a spark in air, rather than the vacuum arc as used in this work.

| Intensity | λ | 1/λ | |
|---|---|---|---|
| 3 | 2387·5 | 41885 | |
| 3 | 2354·0 | 42481 | |
| 5 | 2347·0 | 42607 | |
| 4 | 2344·5 | 42653 | |
| 4 | 2325·5 | 43001 | |
| 7 | 2313·2 | 43230 | |
| 7 | 2308·0 | 43327 | |
| 2 | 2293·0 | 43611 | |
| 8 | 2286·5 | 43735 | |
| 4 | 2246·5 | 44534 | |
| 4 | 2138·7 | 46757 | |
| 2 | 2099·3 | 47635 | |
| 5 | 2061·5 | 48503 | |
| 7 | 2026·2 | 49354 | |
| 2 | 1939·5 | 51560 | |
| 9 | 1929·5 | 51827 | |
| 3 | 1912·2 | 52296 | |
| 4 | 1893·8 | 52804 | |
| 10 | 1861·4 | 53721 | |
| 10 | 1853·0 | 53966 | |
| 2 | 1819·8 | 54951 | |
| 1 | 1740·3 | 57461 | |
| 2 | 1710·9 | 58449 | |
| 7 | 1669·9 | 59884 | |

From λ2400 to λ2000 the experimental error is probably as much as one angstrom unit. This is due to the fact that the dispersion in this region is small, being about ·05mm. per angstrom unit; also the lines obtained on the photographic plate are not as well defined. These measurements are given for a guide for future research work with vacuum arc sources.

From λ2000 down, the probable error is on the average, well within half an angstrom unit. The dispersion varies from ·067mm. at λ2000 to ·20mm. at λ1400 per angstrom unit.

*Summary of Results.*

The vacuum arc spectra of copper, zinc, aluminium, carbon, iron, tin, lead, thallium, nickel and cobalt have been studied from λ2400 to λ1400. The vacuum arc spectra obtained for copper, zinc and aluminium were found to correspond with the results obtained