

# ■「高等学校理科用 教授資料 化学基礎 朱註」の訂正について

本書には、次のところに誤りがございます。深くお詫び申し上げますと共に、下記のように訂正の上、ご使用いただきますようお願いいたします。なお、教科書の縮刷部分に関しましては、小社 Web「教科書 訂正のお知らせ」ページでご確認ください。(株)新興出版社啓林館編集部

| ページ              | 簡 所          | 誤                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 正                                                                                 |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
|------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|--------|------|-----|-------|-----------------|-------|--------|-----------------|-------|--------|------------------|------|--------|-------------------------------|------|--------|------------------|------|--------|-------------------------------|------|--------|----------------|------|--------|-----------------|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-------|------|-----|-------|-----------------|-------|-------|-----------------|-------|-------|------------------|------|-------|-------------------------------|------|-------|------------------|------|-------|-------------------------------|------|-------|----------------|------|-------|-----------------|------|-------|
| 6                | 中段下から 1 行目   | ポリカーボネート                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ポリカーボネート                                                                          |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 右段 話題        | ポリエチレン                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ポリスチレン                                                                            |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 7                | 中段 6 行目      | 1085℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1083℃                                                                             |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 右段 19 行目     | 1538℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1535℃                                                                             |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 8                | 左段 1 行目      | <b>[1]</b> アルミニウム                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>[1]</b> アルミニウム Al 融点 660℃                                                      |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 18               | 左段下から 8 行目   | 消化器                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 消火器                                                                               |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 左段下から 3 行目   | クロロフロオロカーボン                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | クロロフルオロカーボン                                                                       |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 20               | 左段 表         | <table><tr><th>陽イオン</th><th>[g]</th><th>[mol]</th><th>陰イオン</th><th>[g]</th><th>[mol]</th></tr><tr><td>Na<sup>+</sup></td><td>10.56</td><td>0.4590</td><td>Cl<sup>-</sup></td><td>18.98</td><td>0.5354</td></tr><tr><td>Mg<sup>2+</sup></td><td>1.27</td><td>0.0523</td><td>SO<sub>4</sub><sup>2-</sup></td><td>2.65</td><td>0.0276</td></tr><tr><td>Ca<sup>2+</sup></td><td>0.40</td><td>0.0100</td><td>HCO<sub>3</sub><sup>-</sup></td><td>0.14</td><td>0.0023</td></tr><tr><td>K<sup>+</sup></td><td>0.38</td><td>0.0097</td><td>Br<sup>-</sup></td><td>0.07</td><td>0.0008</td></tr></table> | 陽イオン                                                                              | [g]   | [mol]  | 陰イオン | [g] | [mol] | Na <sup>+</sup> | 10.56 | 0.4590 | Cl <sup>-</sup> | 18.98 | 0.5354 | Mg <sup>2+</sup> | 1.27 | 0.0523 | SO <sub>4</sub> <sup>2-</sup> | 2.65 | 0.0276 | Ca <sup>2+</sup> | 0.40 | 0.0100 | HCO <sub>3</sub> <sup>-</sup> | 0.14 | 0.0023 | K <sup>+</sup> | 0.38 | 0.0097 | Br <sup>-</sup> | 0.07 | 0.0008 | <table><tr><th>陽イオン</th><th>[g]</th><th>[mol]</th><th>陰イオン</th><th>[g]</th><th>[mol]</th></tr><tr><td>Na<sup>+</sup></td><td>10.59</td><td>0.461</td><td>Cl<sup>-</sup></td><td>19.02</td><td>0.537</td></tr><tr><td>Mg<sup>2+</sup></td><td>1.27</td><td>0.052</td><td>SO<sub>4</sub><sup>2-</sup></td><td>2.69</td><td>0.028</td></tr><tr><td>Ca<sup>2+</sup></td><td>0.40</td><td>0.010</td><td>HCO<sub>3</sub><sup>-</sup></td><td>0.14</td><td>0.002</td></tr><tr><td>K<sup>+</sup></td><td>0.38</td><td>0.010</td><td>Br<sup>-</sup></td><td>0.07</td><td>0.001</td></tr></table> | 陽イオン | [g] | [mol] | 陰イオン | [g] | [mol] | Na <sup>+</sup> | 10.59 | 0.461 | Cl <sup>-</sup> | 19.02 | 0.537 | Mg <sup>2+</sup> | 1.27 | 0.052 | SO <sub>4</sub> <sup>2-</sup> | 2.69 | 0.028 | Ca <sup>2+</sup> | 0.40 | 0.010 | HCO <sub>3</sub> <sup>-</sup> | 0.14 | 0.002 | K <sup>+</sup> | 0.38 | 0.010 | Br <sup>-</sup> | 0.07 | 0.001 |
| 陽イオン             | [g]          | [mol]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 陰イオン                                                                              | [g]   | [mol]  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Na <sup>+</sup>  | 10.56        | 0.4590                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cl <sup>-</sup>                                                                   | 18.98 | 0.5354 |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Mg <sup>2+</sup> | 1.27         | 0.0523                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SO <sub>4</sub> <sup>2-</sup>                                                     | 2.65  | 0.0276 |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Ca <sup>2+</sup> | 0.40         | 0.0100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | HCO <sub>3</sub> <sup>-</sup>                                                     | 0.14  | 0.0023 |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| K <sup>+</sup>   | 0.38         | 0.0097                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Br <sup>-</sup>                                                                   | 0.07  | 0.0008 |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 陽イオン             | [g]          | [mol]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 陰イオン                                                                              | [g]   | [mol]  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Na <sup>+</sup>  | 10.59        | 0.461                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cl <sup>-</sup>                                                                   | 19.02 | 0.537  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Mg <sup>2+</sup> | 1.27         | 0.052                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SO <sub>4</sub> <sup>2-</sup>                                                     | 2.69  | 0.028  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| Ca <sup>2+</sup> | 0.40         | 0.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HCO <sub>3</sub> <sup>-</sup>                                                     | 0.14  | 0.002  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| K <sup>+</sup>   | 0.38         | 0.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Br <sup>-</sup>                                                                   | 0.07  | 0.001  |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 22               | 右段 表         | 溶解度 [g]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 溶解度 [g/水 100 g]                                                                   |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 25               | 右段 15-16 行目  | 等の無極性の分子性物質                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 等の分子結晶をつくる物質                                                                      |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 46               | 左段 表         | (Pentel 緑) 黄 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (Pentel 緑) 黄 1.7                                                                  |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 48               | 右段 8 行目      | 6.4×10 <sup>6</sup> m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.28×10 <sup>7</sup> m                                                            |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 右段 10 行目     | 1.6×10 <sup>8</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3.2×10 <sup>8</sup>                                                               |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 49               | 右段 5 行目      | 1.5×3√A×10 <sup>-13</sup> cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5×3√A×10 <sup>-13</sup> cm                                                      |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 50               | 左段下から 1,2 行目 | <sup>20</sup> Ne と 2 <sup>22</sup> Ne の種が                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <sup>20</sup> Ne と <sup>22</sup> Ne の 2 種が                                        |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 51               | 右段 3 行目      | <sup>92</sup> U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <sup>92</sup> U                                                                   |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 117              | 右段下から 6 行目   | 0.75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.750                                                                             |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 122              | 左段 25 行目     | $\frac{10.0}{26.5} \times 100$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | $\frac{10.0}{26.5}$                                                               |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 左段 28 行目     | $\frac{37.74}{(37.74+100)} \times 100$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\frac{37.74}{37.74+100} \times 100$                                              |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 125              | 右段 15 行目     | 4O <sub>2</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3O <sub>2</sub>                                                                   |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 148              | 右段 5 行目      | 2.73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.74                                                                              |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 149              | 左段 2 行目      | 2.73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.74                                                                              |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 左段 3 行目      | 136.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 137.0                                                                             |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 156              | 右段 5 行目      | 2CuO+H <sub>2</sub> →2Cu+H <sub>2</sub> O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CuO+H <sub>2</sub> →Cu+H <sub>2</sub> O                                           |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 158              | 左段下から 18 行目  | CuCl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CuCl <sub>2</sub>                                                                 |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 162              | 中段 解説(3)     | =+5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | x=+5                                                                              |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 166              | 中段下から 1 行目   | 2FeSC <sub>4</sub> +H <sub>2</sub> O <sub>2</sub> +H <sub>2</sub> SO <sub>4</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2FeSO <sub>4</sub> +H <sub>2</sub> O <sub>2</sub> +H <sub>2</sub> SO <sub>4</sub> |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 167              | 中段 5 行目      | 2Fe <sup>3+</sup> +H <sub>2</sub> O <sub>2</sub> +2H <sup>+</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2Fe <sup>2+</sup> +H <sub>2</sub> O <sub>2</sub> +2H <sup>+</sup>                 |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 182              | 右段 8 行目      | HClO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HOCl                                                                              |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |
| 〃                | 右段 9 行目      | ClO <sup>-</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | OCl <sup>-</sup>                                                                  |       |        |      |     |       |                 |       |        |                 |       |        |                  |      |        |                               |      |        |                  |      |        |                               |      |        |                |      |        |                 |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |     |       |      |     |       |                 |       |       |                 |       |       |                  |      |       |                               |      |       |                  |      |       |                               |      |       |                |      |       |                 |      |       |