

# 臺北醫學大學 113 學年度寒假轉學入學考試

## 試題參考答案釋疑公告-普通化學

題號	釋疑答覆	釋疑結果															
3	<p>Electron Affinity                      When a neutral atom in the gaseous state picks up an electron to form a stable negative ion, energy is released. For example, a chlorine atom can pick up an electron to give a chloride ion, Cl<sup>-</sup>, and 349 kJ/mol of energy is released.</p> <p>本題是考 electron affinity 的基本定義。</p>	維持原答案															
36	<p>配場體強度大小如下：</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">CO, CN<sup>-</sup></td> <td style="width: 33%;">&gt; phen &gt; NO<sub>2</sub><sup>-</sup> &gt; en &gt; NH<sub>3</sub> &gt; NCS<sup>-</sup> &gt; H<sub>2</sub>O &gt; F<sup>-</sup> &gt; RCO<sub>2</sub><sup>-</sup> &gt; OH<sup>-</sup> &gt; Cl<sup>-</sup> &gt; Br<sup>-</sup> &gt; I<sup>-</sup></td> <td style="width: 33%;"></td> </tr> <tr> <td>Low spin</td> <td></td> <td>High spin</td> </tr> <tr> <td>Strong field</td> <td></td> <td>Weak field</td> </tr> <tr> <td>Large Δ</td> <td></td> <td>Small Δ</td> </tr> <tr> <td>π acceptors</td> <td>σ donor only</td> <td>π donors</td> </tr> </table> <p>由上圖可知配體場強度由大到小是 NH<sub>3</sub> &gt; NCS<sup>-</sup> &gt; H<sub>2</sub>O &gt; F<sup>-</sup>。較強配體會具有較大分裂能(splitting energy)，因此 Co(NH<sub>3</sub>)<sub>6</sub><sup>3+</sup> 錯合物具有最大之分裂能。</p>	CO, CN <sup>-</sup>	> phen > NO <sub>2</sub> <sup>-</sup> > en > NH <sub>3</sub> > NCS <sup>-</sup> > H <sub>2</sub> O > F <sup>-</sup> > RCO <sub>2</sub> <sup>-</sup> > OH <sup>-</sup> > Cl <sup>-</sup> > Br <sup>-</sup> > I <sup>-</sup>		Low spin		High spin	Strong field		Weak field	Large Δ		Small Δ	π acceptors	σ donor only	π donors	維持原答案
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