

國立彰化高級中學 110 學年度 數理資優班及實驗班化學科鑑定考試解答

題號	格號及作答區					
1	(1) 3%			(2) 3%		(3) 4%
	$1.66 \times 10^{-24}_{(g)}$ 或 $(1/6.02 \times 10^{23})_{(g)}$			100		1.204×10^{24}
2	(4) 3%				(5) 3%	(6) 4%
	$3\text{Mg}_{(s)} + \text{N}_{2(g)} \longrightarrow \text{Mg}_3\text{N}_{2(s)}$				2	70%
3	(7) 3%			(8) 3%		(9) 4%
	B			4.53		5.1
4	(10)2%		(11) 2%		(12) 3%	(13) 3%
	9		$1.16 \times 10^{-3} \text{ gw/mL}$		17.25 gw 或 17.40 gw	09 : 30
5	(14) 3%			(15) 3%		(16) 4%
	19.2%			$31.8_{(g)}$		$66_{(g)}$
6	(17) 3%			(18) 3%		(19)4%
	18M			111mL		920mL
7	(20) 2%	(21) 2%	(22) 3%	(23) 3%		
	一極	26	3	$\text{Au}^{3+} + 3\text{e}^{-} \longrightarrow \text{Au}_{(s)}$		
8	(24)2%	(25) 2%				(26) 3%
	CH_4	$\text{CH}_{4(g)} + 2\text{O}_{2(g)} \longrightarrow \text{CO}_{2(g)} + 2\text{H}_2\text{O}_{(l)} + 891\text{KJ}$ 或以 $\Delta H = -891\text{KJ}$ 表示				$\text{CO} : 0.2\text{mol}$ $\text{H}_2 : 0.1\text{mol}$ $\text{CH}_4 : 0.1\text{mol}$ 173.6KJ
9	(28) 2%					
	$2\text{C}_4\text{H}_{10(g)} + 13\text{O}_{2(g)} \longrightarrow 8\text{CO}_{2(g)} + 10\text{H}_2\text{O}_{(l)} + 5600\text{KJ}$ (或以 $\Delta H = -5600\text{KJ}$ 表示)					
	(29) 4%			(30) 4%		
	丙烷 C_3H_8 因為每克丙烷的放熱為(2200/44)KJ 大於每克丁烷 的放熱(2800/58)KJ			丁烷 C_4H_{10} 因為每 mol 丁烷的放熱為(2800KJ)大於每 mol 丙 烷的放熱(2200KJ)		
10	(31) 3%			(32) 3%		(33)4%
						