Practice Quiz: Coordination Compounds and Transition Metals

1. Which of the followin A. Hg E	ng elements has the g 3. Ag C. Hf	ground state e D. Au	electron c	onfigurati E. Th	on, [Xe]4f ¹⁴	5d ¹⁰ 6s ¹ ?	
2. The most common or A. +2	xidation state for ion 3. +3 C. +4	s of the transit D. +5	ion eleme	ents is: E. +6			
3. How many unpaired A. 5 B. 4	electrons are there i C. 3	n the Fe ³⁺ ion D. 2	ę E. 1				
4. A certain transition el element be most like A. +2	lement has the stabl ely to form a covaler 3. +3 C. +4	e oxidation sto nt bond with c D. +5	ates of +2 hlorine?	, +3, +4, +; E. +6	5, and +6. lı	n which state v	will the
5. Which of the followin A. V ⁵⁺ E	ng will be paramagn 3. Ni ²⁺ C. Mn	etic? ⁷⁺	D. Ti ⁴⁺	E.	Zn		
6. Chromium and mang the following stateme	ganese are among t ents characterize the	he transition e ese oxides?	elements t	hat form s	everal diffe	erent oxides. W	/hich of
A. As the oxidation the oxides char	n number on the me nge from acidic to b	tal increases, t asic.	he valend	ce-state e	lectronego	tivity increase:	s and
B. As the oxidation the oxides char	n number on the me nge from basic to ac	tal increases, t idic.	he valend	ce-state e	lectronego	tivity increase:	s and
C. As the oxidation the oxides char	n number on the me nge from acidic to b	tal increases, t asic.	he valend	ce-state e	lectronego	tivity decrease	es and
D. As the oxidatior the oxides char	n number on the me nge from basic to ac	tal increases, t idic.	he valend	ce-state e	lectronego	tivity decrease	es and
E. None of these c	choices is correct.						
7. Aluminum reacts with compounds in air to A. silver oxide	h oxygen in the air to form a black coatin B. silver chloride	o form a protec g. What substa C. silver su	ctive oxid ance is fo ulfide	e coating rmed? D. silver c	. Silver also arbonate	reacts with E. silver nitric	le
8. A certain transition n what is the shape of A. octahedral	metal complex has th the complex? B. square pyram	ne formula MX nid C. tetrah	4 ²⁺ . If the nedral	metal ion D. trigon	has a d ⁸ el al pyramid	ectron configu E. square pl	uration, anar
9. Which of the followin A. cyanide, CN B	ng is considered a bio 3. thiocyanate, SCN ⁻	dentate ligano C. oxalate,	d? , C₂O₄² [−]	D. nitrite,	, NO ₂ E.	hydroxide, OF	I
10. A characteristic of li A. they are Lewis ac D. they are electron	igands is that ids. pair acceptors.	B. they are L E. they are B	ewis base rønsted-L	es. owry acid	C. they s.	r are ions.	

Кеу

1. (p. 1024) D

- 2. (p. 1028) A
- 3. (p. 1025) A
- 4. (p. 1029) E
- 5. (p. 1029) B

6. (p. 1029) B

7. (p. 1034) C

8. (p. 1038) E

9. (p. 1039) C

10. (p. 1039) B

quiz coordination compounds Summary

<u>Category</u> <u># of Questi</u> ons Silberberg - 023 Cha 10

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