Unit 13 - Week 12

Assessment 12  Transition Metal Organometallic Chemistry: Principles To Applications

The due date for submitting this assignment has passed.  Due on 2018-04-18, 23:59 IST.

Submitted assignment

1) Identify the incorrect statement(s) in the change in bond orders in transition metal-butadiene complexes is better ascertained by,  1 point

- change in C−C bond lengths
- the $^{1}J(^{13}C, ^{13}C)$ coupling constants
- the $^{1}J(^{13}C, ^{1}H)$ coupling constants
- mass spectrometry

No, the answer is incorrect.
Score: 0
Accepted Answers: mass spectrometry

2) A late electron rich transition metal complex of a conjugated diolefin is known as,  1 point

- a p-complex
- a metal s- alkyl complex
- pincer complex
- a metallacyclopropane

No, the answer is incorrect.
Score: 0
Accepted Answers: a p-complex

3) An early transition metal complex of a conjugated olefin is known as,  1 point

- a p-complex
- a p-complex
- a p-complex
- a p-complex

No, the answer is incorrect.
Score: 0
Accepted Answers: a p-complex

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4) Identify the ones which is(are) **not** a coordination mode of an alkyne ligand,

- [ ]
- [ ]
- [ ]
- [ ]

No, the answer is incorrect.
Score: 0

Accepted Answers:

5) Predict the product of the reaction,

$$ \text{Na}_2[\text{PtCl}_4] \xrightarrow{t-\text{Bu}_2\text{C}_2, \text{EtOH}} \text{RNH}_2 $$

- [ ]
- [ ]
- [ ]
- [ ]
6) Predict the product of the reaction,

\[
\text{Cp}_2\text{Ti(CO)}_2 + \text{PhC}==\text{CPh} \xrightarrow{\text{heptane, vacuum}} \text{heptane, vacuum} \xrightarrow{25 \, ^\circ\text{C}, 3\, \text{h}}
\]
7) Predict the product of the reaction,

\[(\text{Ph}_3\text{P})_2\text{Pt} + \text{C}_2\text{Ph}_2 \rightarrow \]
8) Predict the product of the reaction,

\[ \text{WCl}_6 + \text{C}_2\text{Cl}_2\cdot\text{OEt}_2 + \text{C}_2\text{Cl}_4 \rightarrow \]

- i) \( \text{C}_2\text{Cl}_6 \)
- ii) \( \text{OEt}_2 \)
- iii) \( \text{PPh}_4\text{Cl} \)
9) Predict the product of the reaction,

\[
\text{Cyclohexyl bromide} + \text{Pt(PPh}_3\text{)}_3 \xrightarrow{\text{Na/Hg}} \text{Product}
\]
Predict the product of the reaction.

No, the answer is incorrect.
Score: 0

Accepted Answers: