Supporting Information for

Study of the Molecular Properties of Mono and Binuclear Metal s-Indacenyl Complexes with Ir, Rh and Re: A Theoretical Approach

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Figure S1. Structures of the studied systems. a. Neutral ligand.



Figure S2. b. Ligand dianion.



Figure S3. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Ir, L=bipy and R=H.



Figure S4. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Ir, L=bipy and R=CH₃.



Figure S5. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Ir, L=bipy and R=CH₂CH₃.



Figure S6. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=bipy and R=H.



Figure S7. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=bipy and R=CH₃.



Figure S8. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=bipy and R=CH₂CH₃.



Figure S9. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=bipy,CO and R=H.



Figure S10. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=bipy,CO and R=CH₃.



Figure S11. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=bipy,CO and R=CH₂CH₃.



Figure S12. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Ir, L=(CO)2 and R=H.



Figure S13. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Ir, L=(CO)2 and R=CH₃.



Figure S14. c. monometallic neutron, d. monometallic monoanion and e. bimetallic system with M=Ir, L=(CO)2 and R=CH₂CH₃.



Figure S15. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=(CO)2 and R=H.



Figure S16. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=(CO)2 and R=CH₃.



Figure S17. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Rh, L=(CO)2 and R=CH₂CH₃.



Figure S18. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=(CO)3 and R=H.



Figure S19. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=(CO)3 and R=CH₃.



Figure S20. c. monometallic neutron, **d.** monometallic monoanion and **e.** bimetallic system with M=Re, L=(CO)3 and R=CH₂CH₃.