

## Publications in 1989

33. P. Chow, D. Zargarian, N.J. Taylor, and T.B. Marder, "Synthesis of Hydrido-bis(acetylide) Complexes of Rhodium and the Molecular Structures of *mer-trans*-[Rh(PMe<sub>3</sub>)<sub>3</sub>(H)(C≡CPh)<sub>2</sub>] and *mer-trans*-[{Rh(dmpe)(H)(C≡CSiMe<sub>3</sub>)<sub>2</sub>}<sub>2</sub>(μ-dmpe)] (dmpe = Me<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PM<sub>2</sub>)". *J. Chem. Soc., Chem. Commun.*: 1545-1547 (1989).
32. A.K. Kakkar, S.F. Jones, N.J. Taylor, S. Collins, and T.B. Marder, On the Hapticity of η-Indenyl Complexes: Molecular Structures of [(η<sup>5</sup>-C<sub>9</sub>R<sub>7</sub>)Rh(η<sup>4</sup>-1,5-COD)] (R=H,Me)". *J. Chem. Soc., Chem. Commun.*: 1454-1456 (1989).
31. A.K. Kakkar, N.J. Taylor, J.C. Calabrese, W.A. Nugent, D.C. Roe, E.A. Connaway, and T.B. Marder, "An Unusual Rotational Distortion in an [(η-Indenyl)RhL<sub>2</sub>] Complex: Molecular Structures of [(η-1,2,3-Me<sub>3</sub>C<sub>9</sub>H<sub>4</sub>)Rh(η-C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>] and [(η-C<sub>9</sub>H<sub>7</sub>)Rh(CO)<sub>2</sub>]". *J. Chem. Soc., Chem. Commun.*: 990-992 (1989).
30. A.K. Kakkar, N.J. Taylor, and T.B. Marder, "Synthesis and Structure of the [Rh<sub>2</sub>(dmpe)<sub>4</sub>(μ-dmpe)]<sup>2+</sup> Salt of the Naked Cyclopentadienyl Anion: A Comparison of the Reactivity of [(η-Indenyl)Rh(η-C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>] and [(η-C<sub>5</sub>H<sub>5</sub>)Rh(η-C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>]", *Organometallics* **8**: 1765-1768 (1989).
29. D. Zargarian, P. Chow, N.J. Taylor, and T.B. Marder, "Synthesis of Rh<sup>I</sup>-σ-Acetylide Complexes in Aqueous and Non-Aqueous Solutions: Molecular Structures of [(PMe<sub>3</sub>)<sub>4</sub>Rh(C≡CPh)] and [(PMe<sub>3</sub>)<sub>3</sub>Rh(C≡CSiMe<sub>3</sub>)]", *J. Chem. Soc., Chem. Commun.*: 540-544 (1989).

## Publications in 1988

28. G. Hogarth, J.A. Phillips, F. Van Gastel, N.J. Taylor, T.B. Marder, and A.J. Carty, "Planar 64-Electron Butterfly Clusters with Elongated Metal-Metal Bonds: Synthesis and Molecular Structures of Ru<sub>4</sub>(CO)<sub>13</sub>(μ-PPh<sub>2</sub>)<sub>2</sub> and Ru<sub>4</sub>(CO)<sub>10</sub>(μ-PPh<sub>2</sub>)<sub>4</sub>". *J. Chem. Soc., Chem. Commun.*: 1570-1572 (1988).
27. T.B. Marder, D.M.T. Chan, W.C. Fultz, and D. Milstein, "Synthesis and Molecular Structures of a Rhodalactone and its Alkylation Product. Insertion of a Pendant Alkyne into a Rh-H Bond", *J. Chem. Soc., Chem. Commun.*: 996-998 (1988).
26. R.T. Carl, R.P. Hughes, A.L. Rheingold, T.B. Marder, and N.J. Taylor, "Synthesis, Structures, and Solution Dynamics of Mononuclear and Dinuclear η<sup>5</sup>-Indenylrhodium Complexes of Octafluorocyclooctatetraene. Crystal and Molecular Structures of [Rh(η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)(1,2,5,6-η-C<sub>8</sub>F<sub>8</sub>)], {[Rh(η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)<sub>2</sub>[μ-(1,5,6-η:2-4-η-C<sub>8</sub>F<sub>8</sub>)](Rh-Rh)}, {[Rh(η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)<sub>2</sub>[μ-(1,5,6-η:2-4-η-C<sub>8</sub>F<sub>7</sub>H)](Rh-Rh)}}, and {[Rh(η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)(CO)][Rh(η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)][μ-1,2,5,6-η:7,8-η-C<sub>8</sub>F<sub>8</sub>]}}", *Organometallics* **7**: 1613-1624 (1988).
25. T.B. Marder, D.C. Roe, and D. Milstein, "Transition Metal Catalyzed C-C Bond Formation via C-H Activation. Intermolecular Hydroacylation: The Addition of Aldehydes to Alkenes", *Organometallics* **7**: 1451-1453 (1988).
24. D.M.T. Chan and T.B. Marder, "Synthesis, Structure and Bonding of Cl<sub>2</sub>Sn[Rh(PMe<sub>3</sub>)<sub>3</sub>Cl]<sub>2</sub>: An Unusual Sn(II)-Rh(I) Adduct", *Angew. Chem. Int. Ed. Engl.* **27**: 442-443 (1988); *Angew. Chem.* **100**: 436-437 (1988).

## Publications in 1987

23. T.B. Marder, "Continuous Inert Gas Purge Glovebox for Organometallic Synthesis", **invited contribution** for Experimental Organometallic Chemistry: A Practicum in Synthesis and Characterization, A.L. Wayda and M. Daresbourg (Eds.), *ACS Symposium Series* **357**: 153-155 (1987).
22. T.B. Marder, D.M.T. Chan, W.C. Fultz, J.C. Calabrese, and D. Milstein, "Mechanistic Studies of the Rhodium Catalyzed Cyclization of  $\alpha,\omega$ -Alkynoic Acids to Alkylidene Lactones. Crystal Structures of Two Iridium Model Catalytic Intermediates", *J. Chem. Soc., Chem. Commun.*: 1885-1887 (1987).
21. T.B. Marder, D. Zargarian, J.C. Calabrese, T. Herskovitz, and D. Milstein, "C-H Rather than O-H Activation: Synthesis and Molecular Structure of a Cationic *cis*-Hydrido- $\sigma$ -Acetylide Complex of Rhodium", *J. Chem. Soc., Chem. Commun.*: 1484-1485 (1987).
20. T.B. Marder, J.C. Calabrese, D.C. Roe, and T.H. Tulip, "On the Slip-Fold Distortion of  $\pi$ -Bound Indenyl Ligands: Dynamic NMR and X-Ray Crystallographic Studies of ( $\eta$ -Indenyl)RhL<sub>2</sub> Complexes", *Organometallics* **6**: 2012-2014 (1987).
19. T.B. Marder and I.D. Williams, "Facile Displacement of an  $\eta^5$ -Indenyl Ligand. Crystal Structure of the [Me<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PM<sub>2</sub>)<sub>2</sub>Rh]<sup>+</sup> Salt of the Naked Indenyl Anion", *J. Chem. Soc., Chem. Commun.*: 1478-1480 (1987).
18. T.B. Marder, W.C. Fultz, J.C. Calabrese, R.L. Harlow, and D. Milstein, "Activation of Dichloromethane by Basic Rhodium (I) and Iridium (I) Phosphine Complexes: Synthesis and Structures of *fac*-[Rh(PMe<sub>3</sub>)<sub>3</sub>Cl<sub>2</sub>(CH<sub>2</sub>PM<sub>3</sub>)] Cl•CH<sub>2</sub>Cl<sub>2</sub> and *trans*-[Rh(dmpe)<sub>2</sub>Cl(CH<sub>2</sub>Cl)]Cl•CH<sub>2</sub>Cl<sub>2</sub>", *J. Chem. Soc., Chem. Commun.*: 1543-1545 (1987).
17. D.M.T. Chan, T.B. Marder, D. Milstein, and N.J. Taylor, "Transition Metal Catalyzed Cyclization of Alkynoic Acids to Alkylidene Lactones", *J. Am. Chem. Soc.* **109**: 6385-6388 (1987).

## Publications in 1985

16. M.R. Awang, R.D. Barr, M. Green, J.A.K. Howard, T.B. Marder, and F.G.A. Stone, "Chemistry of Di- and Tri-Metal Complexes with Bridging Carbene or Carbyne Ligands. Part 37. Methylene Group Transfer to Carbon-Metal Multiple Bonds: Crystal Structures of [TiW{ $\mu$ -C(C<sub>6</sub>H<sub>4</sub>Me-4)=CH<sub>2</sub>}( $\mu$ -CO)(CO)( $\eta$ -C<sub>5</sub>H<sub>5</sub>)<sub>3</sub>] and [PtW{ $\mu$ -C(C<sub>6</sub>H<sub>4</sub>Me-4)=CH<sub>2</sub>}](CO)<sub>2</sub>(PMe<sub>3</sub>)<sub>2</sub>( $\eta$ -C<sub>5</sub>H<sub>5</sub>)]", *J. Chem. Soc., Dalton Trans.*: 2009-2016 (1985).
15. P.E. Behnken, T.B. Marder, R.T. Baker, C.B. Knobler, M.R. Thompson, and M.F. Hawthorne, "Synthesis, Structural Characterization and Stereospecificity in the Formation of Bimetallic Rhodacarborane Clusters Containing Rh-H-B Bridge Interactions", *J. Am. Chem. Soc.* **107**: 932-940 (1985).