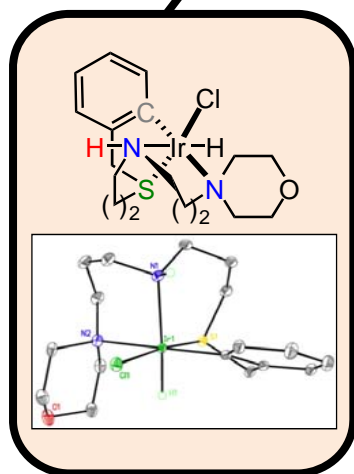
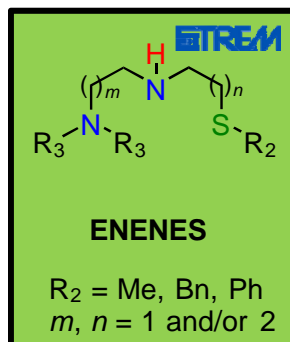
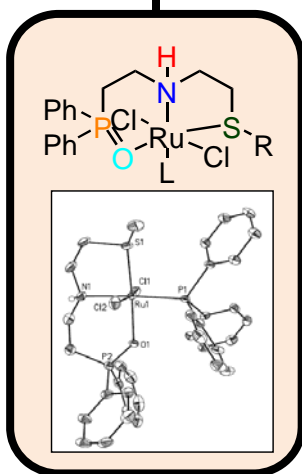
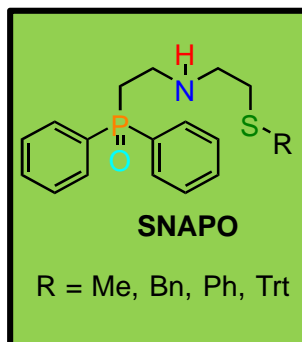


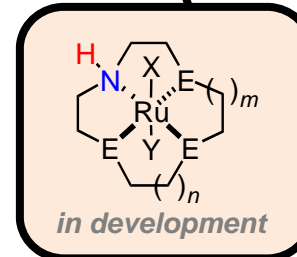
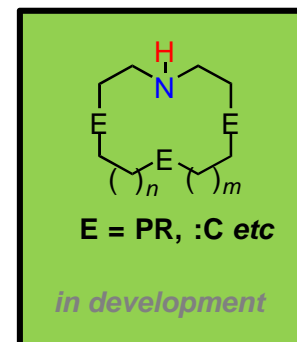
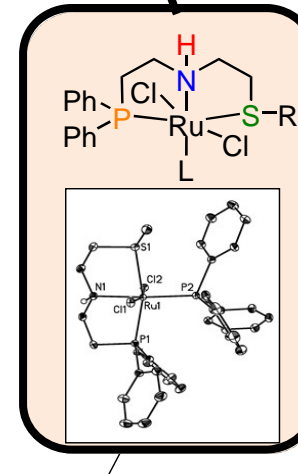
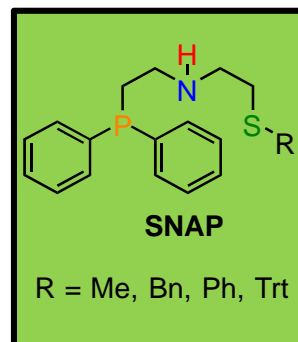
LANL Ligands and Molecular Catalysts for the Hydrogenation of Molecules Containing Carbonyl Functionalities



P. A. Dub, B. L. Scott, J. C. Gordon
Organometallics, **2015**, 34, 4464
J. Am. Chem. Soc., **2017**, 139, 1245



P. A. Dub, J. C. Gordon *PCT Int. Appl.* **2015**
 WO 2015191505 A1 20151217

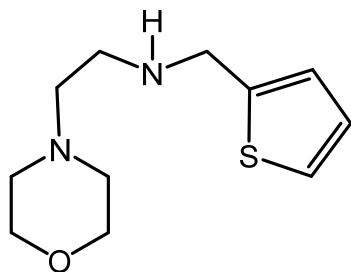


P. A. Dub, Y. Minko J. G. Schmidt.
 R. F. Williams, J. C. Gordon
 US Non-Provisional Patent Application
 No 62/481,427 filed, April 3, **2018**

LA-UR-18-23770

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STREM CHEMICALS, INC.**

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Strem Catalog #07-3525:

**Highlighted in the American Chemical Society's
"Chemical and Engineering News" Magazine,
April 9th, 2018 Edition, page 41**

LA-UR-18-23770

Strem Product #	Compound Name	CAS No
07-3500	2-Morpholino-N-(2-(phenylthio)ethyl)ethan-1-amine	1179894-18-8
07-3505	3-Morpholino-N-(2-(phenylthio)ethyl)propan-1-amine	1500636-48-5
07-3510	2-(Phenylthio)-N-(2-(pyrrolidin-1-yl)ethyl)ethan-1-amine	1494801-76-1
07-3515	N1,N1-Dimethyl-N2-(2-(phenylthio)ethyl)ethane-1,2-diamine	1179900-47-0
07-3520	2-(Methylthio)-N-(2-morpholinoethyl)ethan-1-amine	1342746-15-9
07-3525	2-Morpholino-N-(thiophen-2-ylmethyl)ethan-1-amine	775293-39-5
07-3530	2-(Benzylthio)-N-(2-morpholinoethyl)ethan-1-amine	1799787-08-8
07-3535	3-(Benzylthio)-N-(2-morpholinoethyl)propan-1-amine	1799787-09-9
77-0550	Chlorohydro[2-[[[3-[[3-(4-morpholinyl-κN4)propyl]amino-κN]propyl]thio-κS]methyl]phenyl-κC]Iridium(III)	1799787-28-2
77-0560	Chlorohydro[2-[[[3-[methyl[3-(4-morpholinyl-κN4)propyl]amino-κN]propyl]thio-κS]methyl]phenyl-κC]Iridium(III)	1839552-43-0
77-0570	Chlorohydro[2-[[[(R)-[2-[(R)-[2-(4-morpholinyl-κN4)ethyl]amino-κN]ethyl]thio-κS]methyl]phenyl-κC]-Iridium(III)	1799787-26-0
44-0550	Dichloro[rel-[N(S)]-N-[2-[(R)-phenylthio-κS]ethyl]-4-morpholineethanamine-κNN ⁴ ,κN4](triphenylphosphine)Ruthenium(II)	1799787-13-5
44-0555	Dichloro[rel-[N(R)]-N-[2-[(R)-(phenylmethyl)thio-κS]ethyl]-4-morpholineethanamine-κNN ⁴ ,κN4](triphenylphosphine)Ruthenium(II), compd. with dichloromethane	1799787-29-3
44-0560	Dichloro[rel-[N(S)]-N-[2-[(R)-methylthio-κS]ethyl]-4-morpholineethanamine-κNN4,κN4](triphenylphosphine)Ruthenium(II)	1799824-01-3
44-0565	Dichloro[N-[2-(phenylthio-κS)ethyl]-4-morpholineethanamine-κNN1,κN1](tricyclohexylphosphine)Ruthenium(II)	1799787-22-6
44-0570	Dichloro[rel-[N(S)]-N-[2-[(R)-phenylthio-κS]ethyl]-1-pyrrolidineethanamine-κNN ² ,κN1](triphenylphosphine)Ruthenium(II)	1799787-20-4
44-0575	Dichloro[rel-[N2(S)]-N1,N1-dimethyl-N2-[2-[(R)-phenylthio-κS]ethyl]-1,2-ethanediamine-κN1,κN2](triphenylphosphine)Ruthenium(II), compd. with dichloromethane	1799787-31-7
44-0580	Dichloro[N1,N1-dimethyl-N2-[2-(phenylthio-κS)ethyl]-1,2-ethanediamine-κN1,κN2](tricyclohexylphosphine)Ruthenium(II)	1839552-39-4