Bibliographie complète

1980

1. A heme model study of carbon tetrachloride metabolism : mechanism of phosgene and carbon dioxide formation
D. Mansuy, M. Fontecave, J.C. Chottard
Biochem. Biophys. Res. Commun. 1980, 95, 1536-1542

1982

2. A heme model system for the reduction of substrates by microsomal cytochrome P-450
D. Mansuy, M. Fontecave
Biochem. Biophys. Res. Commun. 1982, 104, 1651-1657

3. Intermediate formation of a σ-alkyl iron(III) complex in the reduction of 4-nitrobenzyl chloride catalysed by iron(II)-porphyrins
D. Mansuy, M. Fontecave, J.P. Battioni
J. Chem. Soc., Chem. Commun. 1982, 317-319

1983

4. Reduction of benzyl halides by liver microsomes : formation of 478 nm-absorbing
σ-alkyl-ferric cytochrome P-450 complexes
D. Mansuy, M. Fontecave
Biochem. Pharmacol. 1983, 32, 1871-1879

5. Monooxygenase-like dioxygen activation leading to alkane hydroxylation and olefin epoxidation by a Mn (porphyrin)-ascorbate biphasic system
D. Mansuy, M. Fontecave, J.F. Bartoli
J. Chem. Soc. Chem. Commun. 1983, 253-254

1984

6. Oxidation of monosubstituted olefins by cytochrome P-450 and heme models : evidence for the formation of aldehydes in addition to epoxides and allylic alcohols
D. Mansuy, J. Leclaire, M. Fontecave, M. Momenteau
Biochem. Biophys. Res. Commun. 1984, 119, 319-325

7. Alkylation of the α and γ meso positions of tetraphenylporphyrins upon reduction of allyl and propargyl bromide by iron(II)-tetraphenylporphyrin : a new route to posphodimethene complexes
M. Fontecave J.P. Battioni, D. Mansuy
J. Am. Chem. Soc. 1984, 106, 5217-5222

8. Regioselectivity of olefin oxidation by iodosobenzene catalyzed by metalloporphyrins : control by the catalyst
D. Mansuy, J. Leclaire, M. Fontecave, P. Dansette
Tetrahedron 1984, 40, 2847-2857

9. Monooxygenase-like oxidations of olefins and alkanes catalyzed by manganese porphyrins : comparison of systems involving either O_2 and ascorbate or iodosylbenzene
M. Fontecave, D. Mansuy
Tetrahedron 1984, 40, 4297-4311

10. Alkene epoxidation by iodosylbenzene catalyzed by porphyrin and non-porphyrin iron complexes : about the importance of the porphyrin ligand in cytochrome P-450 and heme model reactions
M. Fontecave, D. Mansuy
J. Chem. Soc., Chem. Comm. 1984, 879-881

1986

11. Oxygen transfer from iron-oxo porphyrins to ethylene. A semi empirical MO/VB approach
A. Sevin, M. Fontecave
J. Am. Chem. Soc. 1986, 108, 3266-3272

1987

12. The stimulatory effects of asbestos on NADPH-dependent lipid peroxidation in rat liver microsomes
M. Fontecave, D. Mansuy, M. Jaouen, H. Pezerat
Biochem. J. 1987, 241, 561-565

13. A new and efficient biomimetic system for hydrocarbon oxidation by dioxygen using manganese-porphyrins, imidazole and zinc
P. Battioni, J.F. Bartoli, P. Leduc, M. Fontecave, D. Mansuy
J. Chem. Soc., Chem. Commun. 1987, 791-792

14. A NAD(P)H : Flavin Oxidoreductase is involved in the activation of Ribonucleotide reductase in *E. Coli*
M. Fontecave, P. Reichard

Recueil des Travaux Chimiques des Pays Bas 1987, 106/6-7, 245

15. NAD(P)H : Flavin Oxidoreductase of *E. Coli* : A Ferric Iron Reductase Participating in the Generation of the Free Radical of Ribonucleotide Reductase
M. Fontecave, R. Eliasson, P. Reichard
*J. Biol. Chem.*1987, 262, 12325-12331

16. The function of superoxide dismutase during the enzymatic formation of the free radical of ribonucleotide reductase
M. Fontecave, A. Graslund, P. Reichard
J. Biol. Chem. 1987, 262, 12332-12336

1989

17. Oxygen-sensitive ribonucleoside triphosphate reductase in anaerobic *E. coli*
M. Fontecave, R. Eliasson, P. Reichard
Proc. Natl. Acad. Sci. USA 1989, 86, 2147-2151

18. Enzymatic regulation of the radical content of the small subunit of *E. Coli* ribonucleotide reductase involving reduction of its redox centers
M. Fontecave, R. Eliasson, P. Reichard
J. Biol. Chem. 1989, 264, 9164-9170

1990

19. High valent iron-oxo intermediates might be involved during activation of ribonucleotide reductase : single oxygen atom donors generate the tyrosyl radical
M. Fontecave, C. Gerez, M. Atta, A. Jeunet
Biochem. Biophys. Res. Commun. 1990, 168, 659-664

20. The anaerobic ribonucleoside triphosphate reductase from *Escherichia Coli* requires S-adenosylmethionine as a cofactor
R. Eliasson, M. Fontecave, H. Jornvall, M. Krook, E. Pontis, P. Reichard
Proc. Natl. Acad. Sci. USA 1990, 87, 3314-3318

21. Reduction of the Fe(III)-Tyrosyl radical center of *Escherichia Coli* ribonucleotide reductase by dithiothreitol
M. Fontecave, C. Gerez, D. Mansuy, P. Reichard
J. Biol. Chem. 1990, 265, 10919-10924

22. Microsomal lipid peroxidation and oxy-radicals formation are induced by insoluble iron-containing minerals
M. Fontecave, M. Jaouen, D. Mansuy, D. Costa, R. Zalma, H. Pezerat
Biochem. Biophys. Res. Commun. 1990, 173, 912-918

23. Human thioredoxin reactivity-structure-function relationship

J.P. Jacquot, F. de Lamotte, M. Fontecave, P. Schürman, P. Decottignies
M. Miginiac-Maslow, E. Wollman
Biochem. Biophys. Res. Commun. 1990, 173, 1375-1381

1991

24. Vitamin E derivatives as new potent inhibitors of microsomal lipid peroxidation
J.P. Battioni, M. Fontecave, M. Jaouen, D. Mansuy
Biochem. Biophys. Res. Commun. 1991, 174, 1103-1108

25. Reduction of the small subunit of ribonucleotide reductase by diimide : evidence for the formation of the mixed-valence Fe(II)-Fe(III) center
C. Gerez, J. Gaillard, J.M. Latour, M. Fontecave
Angew. Chem., Int. Ed. Engl. 1991, 30, 1135-1136

26. Inactivation of ribonucleotide reductase by nitric oxide
M. Lepoivre, F. Fieschi, J. Covès, L. Thelander, M. Fontecave
Biochem. Biophys. Res. Commun. 1991, 179, 442-448

27. Activation et toxicité de l'oxygène - Principes des thérapeutiques antioxydantes
M. Fontecave, J.L. Pierre
Bull. Soc. Chim. Fr. 1991, 128, 505-520

28. NADPH oxidation by hydrogen peroxide in *Escherichia Coli*
J. Covès, M. Eschenbrenner, M. Fontecave
Biochem. Biophys. Res. Commun. 1991, 178, 54-59

29. Iron metabolism : the low molecular-mass iron pool
M. Fontecave, J.L. Pierre
Biol. Metal. 1991, 4, 133-135

30. Alkane oxidation by polynuclear Non-Heme Iron Complexes - an Imidazole Effect
M. Fontecave, B. Roy, C. Lambeaux
J. Chem. Soc., Chem. Commun. 1991, 939-940

1992

31. The redox centers of ribonucleotide reductase from *Escherichia Coli*
M. Fontecave, P. Nordlund, H. Eklund, P. Reichard
Advances in Enzymology 1992, 65, 147-183

32. Reduction of the small subunit of *Escherichia Coli* Ribonucleotide reductase by Hydrazines and Hydroxylamines
C. Gerez, M. Fontecave
Biochemistry 1992, 31, 780-786

33. Substitution of manganese for iron in ribonucleotide reductase from *Escherichia coli* : spectroscopic and crystallographic characterization
M. Atta, P. Nordlund, A. Aberg, H. Eklund, M. Fontecave
J. Biol. Chem. 1992, 267, 20682-20688

34. Ribonucléotide réductase et régulation de la biosynthèse des désoxyribonucléotides
M. Fontecave, V. Nivière, E. Mulliez
Annales de l'Institut Pasteur 1992, 3, 159-165

35. L'acquisition du fer par les plantes
J.L. Pierre, M. Fontecave
Actualité chimique Juillet-Août 1992, 297-302

36. Multifield saturation magnetisation measurements of oxidized and reduced ribonucleotide reductase from *Escherichia coli*
M. Atta, C. Scheer, P. Fries, M. Fontecave and J.M. Latour
Angew. Chem. Int. Ed. Engl. 1992, 31, 1513-1515

37. 8-Azido-Adenosine and ribonucleotide reductase
B. Roy, M. Lepoivre, J.L. Decout, J. Lhomme, M. Fontecave
Biochem. Biophys. Res. Commun. 1992, 187, 432-437

38. Characterization of components of the anaerobic ribonucleotide reductase system from *Escherichia coli*
R. Eliasson, E. Pontis, M. Fontecave, C. Gerez, J. Harder, H. Jornvall, M. Krook, P. Reichard
J. Biol. Chem. 1992, 267, 25541-25547

1993

39. Fer et peroxyde d'hydrogène : aspects chimiques d'un problème biologique fondamental
M. Fontecave, J.L. Pierre
Bull. Soc. Chim. 1993, 130, 77-85

40. Reduction and mobilization of iron by a NAD(P)H : flavin oxidoreductase from *Escherichia coli*
J. Covès, M. Fontecave
Eur. J. Biochem. 1993, 211, 635-641

41. *Escherichia coli* and herpes simplex virus ribonucleotide reductase R_2 subunit : compared reactivities of the redox centers
M. Atta, N. Lamarche, J.P. Battioni, B. Massie, Y. Langelier, D. Mansuy, M. Fontecave
Biochem. J. 1993, 290 (3), 807-810

42. An iron-sulfur center and a free radical in the active anaerobic ribonucleotide reductase of *Escherichia coli*
E. Mulliez, M. Fontecave, J. Gaillard, P. Reichard
J. Biol. Chem. 1993, 268, 2296-2299

43. Iron : metabolism, toxicity, therapy
M. Fontecave, J.L. Pierre
Biochimie 1993 , 75, 763-773.

44. Sulfite reductase of *Escherichia coli* is a ferrisiderophore reductase
J. Covès, M. Eschenbrenner, M. Fontecave
Biochem. Biophys. Res. Commun. 1993, 1403-1408

45. NADPH-sulfite reductase from *Escherichia coli* : a flavin reductase participating in the generation of the free radical of ribonucleotide reductase
J. Covès, V. Nivière, M. Eschenbrenner and M. Fontecave
J. Biol. Chem. 1993 , 268, 18604-18609

46. Alkane oxidation catalyzed by µ-oxo bridged diferric complexes : a structure-reactivity correlation study
S. Ménage, J.M. Vincent, C. Lambeaux, G. Chottard, A. Grand, M. Fontecave
Inorg. Chem. 1993 , 32, 4766-4773.

47. Le métabolisme des nucléosides et des nucléotides - Implications dans la recherche de nouveaux agents anti-VIH
B. Roy, M. Fontecave
Bulletin de l'Institut Pasteur 1993 , 91, 89-100

48. Abduction of iron (III) from soluble methane monooxygenase hydroxylase and reconstitution of the binuclear site with iron and manganese
M. Atta, M. Fontecave, P.C. Wilkins, H. Dalton
Eur. J. Biochem. 1993, 217, 217-223

49. ^{19}F NMR study of the interaction of fluoride ion with ribonucleotide reductase and methane monooxygenase
S. Hamman, M. Atta, A. Ehrenberg, P. Wilkins, H. Dalton, C. Béguin, M. Fontecave
*Biochem. Biophys. Res. Commun.*1993, 195, 594-599

50. Magnetization studies of diiron proteins
M. Atta, H. Dalton, M. Fontecave, P.H. Fries, J.F. Jacquot, J.M. Latour, P. Wilkins
J. Inorg. Biochem. 1993, 51, 455

51. Biomimétisme : les modèles abiotiques, plaque tournante de l'interface Chimie biologie
M. Fontecave, J.L. Pierre
Lettres des Départements Scientifiques du CNRS N° 45, mai-juin-juillet 1993

52. Inhibition of ribonucleotide reductase as a molecular basis of NO-dependent cytostasis
M. Lepoivre, M. Fontecave, Y. Henry, G. Lemaire

Endothelium 1993, 1 (suppl), 30

53. Flavodoxin is required for the activation of the anaerobic ribonucleotide reductase
V. Bianchi, R. Eliasson, M. Fontecave, E. Mulliez, D.M. Hoover, R.G. Matthews, P. Reichard
Biochem. Biophys. Res.Commun. 1993, 197, 792-797

1994

54. The NADPH : flavin oxidoreductase from *E. coli* as a source of superoxide radicals
P. Gaudu, D. Touati, V. Nivière, M. Fontecave
J. Biol. Chem. 1994, 269, 8182-8188

55. Ferric reductases *in Escherichia coli*: the contribution of the haemoglobin-like protein
M. Eschenbrenner, J. Covès, M. Fontecave
Biochem. Biophys. Res. Commun. 1994, 198, 127-131

56. Ferric reductases or flavin reductases ?
M. Fontecave, J. Covès, J.L. Pierre
Biol. Metals 1994, 7, 3-8

57. The basic chemistry of nitric oxide and its possible biological reactions
M. Fontecave, J.L. Pierre
Bull. Soc. Chim. Fr. 1994, 131, 620-631

58. μ-oxo bridged diferric complexes and H_2O_2 : monooxygenase and catalase-like activities
S. Ménage, J.M. Vincent, C. Lambeaux, M. Fontecave
J. Chem. Soc. Dalton Trans., 1994, 2081-2084

59. Mn^{2+}-based oxidation of alkanes : generation of a high valent binuclear catalyst in situ
S. Ménage, M.N. Collomb-Dunand-Sauthier, C. Lambeaux, M. Fontecave
J. Chem. Soc. Chem. Comm., 1994, 1885-1886

60. New thionitrites : synthesis, stability and nitric oxide generation
B. Roy, A. de Moulinet d'Hardemare, M. Fontecave
J. Org. Chem. 1994, 23, 7019-7026

61. Oxidation of alkanes catalyzed by binuclear metal complexes : control by the coordination sphere
J.M. Vincent, S. Ménage, C. Lambeaux, M. Fontecave
Tetrahedron Letters 1994, 35, 6287-6290

62. The NADPH : Sulfite reductase of *Escherichia Coli* is a paraquat reductase

P. Gaudu, M. Fontecave
Eur. J. Biochem. 1994, 226, 459-463

1995

63. Formation of an alkylperoxo Iron (III) Complex during oxidations catalyzed by μ-oxo diiron complexes
S. Ménage, E. Wilkinson, L. Que, M. Fontecave
Angew. Chem. Int. Ed. Engl. 1995, 34, 203-205

64. Conformational behavior and magnetic properties of organic radicals derived from aminoacid residues. The dipeptide analogue of glycine radical
V. Barone, C. Adamo, A. Grand, Y. Brunel, M. Fontecave, R. Subra
J. Am. Chem. Soc. 1995, 117, 1083-1089

65. A new type of trinuclear iron (III) oxo cluster
J.M. Vincent, S. Ménage, J.M. Latour, A. Bousseksou, J.P. Tuchagues, A. Decian, M. Fontecave
Angew. Chem. Int .Ed .Engl. 1995, 34, 205-207

66. Inhibition of ribonucleotide reductase by nitric oxide derived from thionitrites : reversible modifications of both subunits
B. Roy, M. Lepoivre, Y. Henry, M. Fontecave
Biochemistry 1995, 34, 5411-5418

67. NMR studies of binding of 5-FdUDP and dCDP to ribonucleotide diphosphate reductase from *Escherichia coli*
B. Roy, J.L. Decout, C. Béguin, M. Fontecave, P. Allard, S. Kuprin, A. Ehrenberg
Biochemica Biophysica Acta 1995, 1247, 284-292

68. Decomposition of FK409, a new vasodilatator : identification of nitric oxide as a metabolite
J.L. Decout, B. Roy, M. Fontecave, J.C. Muller, P.H. Williams, D. Loyaux
BioOrg. Med. Chem. Lett. 1995, 5, 973-978

69. Formate as hydrogen donor for the anaerobic ribonucleotide reductase from *Escherichia coli*
E. Mulliez, S. Ollagnier, M. Fontecave, R. Eliasson, P. Reichard
Proc. Natl. Acad. Sci. 1995, 92, 8759-8762

70. The flavin reductase activity of the flavoprotein component of sulfite reductase from *E.coli*. A new model for the protein structure
M. Eschenbrenner, J. Covès, M. Fontecave
J. Biol. Chem. 1995, 270, 20550-20555

71. G-values as a probe of the local protein environment : high-field EPR of tyrosyl radicals in ribonucleotide reductase and photosystem II
S. Un, M. Atta, M. Fontecave, A.W. Rutherford

J. Am. Chem. Soc. 1995, 117, 10713-10719

72. Enzymatic and chemical reduction of the iron center of the *Escherichia coli* ribonucleotide reductase subunit R2. The role of the C-terminus
J. Covès, B. Delon, I. Clément, B-M. Sjöberg, M. Fontecave
Eur. J. Biochem. 1995, 233, 357-363

73. NADPH-sulfite reductase flavoprotein from *Escherichia coli* : contribution to the flavin content and subunit interaction
M. Eschenbrenner, J. Covès, M. Fontecave
FEBS Letters 1995, 374, 82-84

74. Copper amine oxidase, a novel use for tyrosine
M. Fontecave, H. Eklund
Structure 1995, 3, 1127-1129

75. The mechanism of the anaerobic *Escherichia coli* ribonucleotide reductase investigated with nuclear magnetic resonance spectroscopy
R. Eliasson, P. Reichard, E. Mulliez, S. Ollagnier, M. Fontecave, E. Liepinsh, G. Otting
Biochem. Biophys. Res. Commun. 1995, 214, 28-35

76. The mechanism and substrate specificity of the NADPH : flavin oxidoreductase from *Escherichia coli*
F. Fieschi, V. Nivière, C. Frier, J.L. Decout, M. Fontecave
J. Biol. Chem. 1995, 270, 30392-30400

77. Selective 5'-desilylation of 3',5'-disilyl araU derivatives under basic conditions
L. Le Hir de Fallois, J.L. Decout, M. Fontecave
Tetrahedron Letters 1995, 36, 9479-9480

1996

78. Nitric oxide does not promote iron release from ferritin
J.P. Laulhère, M. Fontecave
Biometals 1996, 9, 10-14

79. Dynamic equilibria in iron uptake and release by ferritin
J.P. Laulhère, F. Barceló, M. Fontecave
Biometals 1996, 9, 303-309

80. The free radical of the anaerobic ribonucleotide reductase from *Escherichia coli* is at glycine 681
X. Sun, S. Ollagnier, P.P. Schmidt, M. Atta, E. Mulliez, L. Lepape, R. Eliasson, A. Gräslund, M. Fontecave, P. Reichard, B.M. Sjöberg
J. Biol. Chem. 1996, 271, 6827-6831

81. The anaerobic *Escherichia coli* ribonucleotide reductase. Subunit structure and iron sulfur center
S. Ollagnier, E. Mulliez, J. Gaillard, R. Eliasson, M. Fontecave, P. Reichard
J. Biol. Chem. 1996, 271, 9410-9416

82. Alkane oxidation catalyzed by μ-oxo bridged diferric complexes : an overall mechanism
S. Ménage, J.M. Vincent, C. Lambeaux, M. Fontecave
J. Mol. Catal. 1996, 113, 61-75

83. Protein tyrosyl free radicals as active species in metalloenzyme catalysis
M. Fontecave, J.L. Pierre
Bull. Soc. Chim. 1996, 133, 653-660

84. Cys 5 and Cys 214 of NAD(P)H : flavin oxidoreductase from *Escherichia coli* are located in the active site
F. Fieschi, V. Nivière, M. Fontecave
Eur. J. Biochem. 1996, 237, 870-875

85. Is the NAD(P)H : flavin oxidoreductase from *Escherichia coli* a member of the ferredoxin-$NADP^+$ reductase family ? Evidence for the catalytic role of serine 49 residue
V. Nivière, F. Fieschi, J.L. Decout, M. Fontecave
J. Biol. Chem. 1996, 271, 16656-16661

86. Inactivation of *Escherichia coli* ribonucleotide reductase by 2'-deoxy-2'-mercaptouridine 5'diphosphate - Electron paramagnetic resonance evidence for a transient protein perthiyl radical.
J. Covès, L. Le Hir de Fallois, J.L. Decout, L. Lepape, M. Fontecave
Biochemistry 1996, 35, 8595-8602

87. The irreversible inactivation of ribonucleotide reductase from *Escherichia coli* by superoxide radicals
P. Gaudu, V.Nivière, Y. Petillot, B. Kauppi, M. Fontecave
FEBS Letters 1996, 387, 137-140

88. Production of herpes-simplex-virus ribonucleotide reductase R2 subunit with prokaryotic and eukaryotic expression systems : higher activity of R2 produced by eukaryotic cells related to higher iron binding capacity
N. Lamarche, G. Matton, B. Massié, M. Fontecave, M. Atta, F. Dumas, P. Gaudreau, Y. Langelier
Biochem J. 1996, 320, 129-135

89. Aromatic hydroxylation by H_2O_2 and O_2 catalyzed by a μ-oxo diiron(III) complex
S. Ménage, J.B. Galey, G. Hussler, M. Seité, M. Fontecave
Angew.Chem., Int. Ed .Engl. 1996, 35, 2353-2355

1997

90. Mixed-valent μ-oxo bridged diiron complexes produced by radiolytic reduction at 77K studied by EPR
R.M. Davydov, S. Ménage, M. Fontecave, A. Graslund, A. Ehrenberg
J. Biol. Inorg. Chem. 1997, 2, 242-255

91. Ribonucleotide reductase in the archaeon, *Pyrococcus furiosus* : a critical enzyme for evolution of DNA genomes
J. Riera, F. Robb, B. Weiss, M. Fontecave
Proc. Natl. Acad. Sci. 1997, 94, 475-478

92. Structure and reactivity of the metal clusters of ribonucleotide reductases
E. Mulliez, M. Fontecave
Chem. Ber. 1997, 130, 317-321

93. Model complexes of diiron sites in methane monooxygenase and ribonucleotide reductase : structure and reactivity
M. Fontecave, S. Ménage, C. Duboc-Toia, J.M. Vincent, C. Lambeaux
Biochem. Soc. Trans. 1997, 25/1, 65-69

94. The flavin mononucleotide-binding domain of the flavoprotein component of the sulfite reductase from *Escherichia coli*
J. Covès, M. Zeghouf, D. Macherel, B. Guigliarelli, M. Asso, M. Fontecave
Biochemistry 1997, 36, 5921-5928

95. The role of iron in the activation of ribonucleotide reductase from *Escherichia coli.*
J. Covès, J.P. Laulhère, M. Fontecave
J. Biol. Inorg. Chem. 1997, 2, 418-426

96. An original electroenzymatic system : flavin reductase-riboflavin for the improvement of dehydrogenase-based biosensors. Application to the amperometric detection of lactate
S. Cosnier, M. Fontecave, C. Innocent, V. Nivière
Electroanalysis 1997, 9, 685-688

97. μ-oxo differric complexes as oxidation catalysts with hydrogen peroxide and their potential in asymmetric oxidation
C. Duboc-Toia, S. Ménage, C. Lambeaux, M. Fontecave
Tet. Letters. 1997, 21, 3727-3730

98. A poly(amphiphilic pyrolle) - Flavin reductase electrode for highly sensitive amperometric determination of flavins
S. Cosnier, M. Fontecave, D. Limosin, V. Nivière
Anal. Chem. 1997, 69, 3095-3099

99. A method for preparing new flavin derivatives : Synthesis of flavin-thymine nucleotides and flavin-oligonucleotide adducts
C. Frier, J.L. Decout, M. Fontecave

J. Org.Chem. 1997, 62, 3520-3528

100. Synthesis of 2'Deoxy-2'-mercaptouridine and cytidine derivatives as potential inhibitors of ribonucleotide diphosphate reductase : Thionitrites, disulfides and 2'-Deoxy-2'-mercaptouridine 5'-Diphosphate.
L. Le Hir de Fallois, J.L. Decout, M. Fontecave
J. Chem. Soc., Perkin Trans. 1997, 2587-2595

101. Activation of the anaerobic ribonucleotide reductase from *Escherichia coli*. The essential role of the iron sulfur center for S-adenosylmethionime reduction
S. Ollagnier, E. Mulliez, P.P. Schmidt, R. Eliasson, J. Gaillard, C. Deronzier, T. Bergman, A. Gräslund, P. Reichard, M. Fontecave
J. Biol. Chem. 1997, 272, 24216-24223

102. Ribonucleotide reductase from the higher plant *Arabidopsis Thaliana* : expression of the R2 component and characterization of its iron-radical center
S. Sauge-Merle, J.P. Laulhère, J. Covès, L. Lepape, S. Ménage, M. Fontecave
J. Biol. Inorg. Chem. 1997, 2, 586-594

103. Structure of a μ-oxo bis hydroxo diiron(III) complex and its reactivity towards phosphodiesters
C. Duboc-Toia, S. Ménage, J.M. Vincent, M.T. Averbuch-Pouchot, J.M. Latour, M. Fontecave
Inorg. Chem. 1997, 36, 6148-6149

104. Reactivity of the tyrosyl radical of *E.coli* ribonucleotide reductase : control by the protein
C. Gerez, E. Elleingand, B. Kauppi, H. Eklund, M. Fontecave
Eur. J. Biochem. 1997, 249, 401-407

1998

105. Oxidations by copper metalloenzymes and some biomimetic approaches
M. Fontecave, J.L. Pierre
Coord. Chem. Rev. 1998, 170, 125-140

106. The FNR-like domain of the *Escherichia coli* sulfite reductase flavoprotein component : crystallization and preliminary X-ray analysis
A. Gruez, M. Zeghouf, J. Bertrand, M. Eschenbrenner, J. Covès, M. Fontecave, D. Pignol, J.C. Fontecilla-Camps
Acta Cryst. 1998, D54, 135-136

107. Functional models of non heme diiron enzymes
M. Fontecave, S. Ménage, C. Toia-Duboc
Coord. Chem. Rev. 1998, 178-180, 1555-1572

108. Resveratrol, a remarkable inhibitor of ribonucleotide reductase
M. Fontecave, M. Lepoivre, E. Elleingand, C. Gerez, O. Guittet

Febs Lett. 1998, 421, 277-279

109. Ribonucleotide reductases and radical reactions
M. Fontecave
Cell and Mol. Life Sci. 1998, 54, 684-695

110. The flavoprotein component of the *Escherichia coli* sulfite reductase : expression, purification, spectral and catalytic properties of a monomeric form containing both the flavin adenine dinucleotide and the flavin mononucleotide cofactors
M. Zeghouf, M. Fontecave, D. Macherel, J. Covès
Biochemistry 1998, 37, 6114-6123

111. A reagentless biosensor for the amperometric determination of NADH
S. Cosnier, J.L. Decout, M. Fontecave, C. Frier, C. Innocent
Electroanalysis 1998, 10 (8), 1-5

112. The flavoprotein component of the *E. coli* sulfite reductase can act as a cytochrome P450c17 reductase
M. Zeghouf, G. Defaye, M. Fontecave, J. Covès
Biochem. Biophys. Res. Commun., 1998, 246 (3), 602-605

113. Reaction of the NAD(P)H : Flavin oxidoreductase from *Escherichia coli* with NADPH and Riboflavin : identification of intermediates
V. Nivière, M.A. Vanoni, G. Zanetti, M. Fontecave
Biochemistry 1998, 37, 11879-11887

114. Reactivity studies of the tyrosyl radical in ribonucleotide reductase from *Mycobacterium tuberculosis* and *Arabidopsis thaliana*. Comparison with *Escherichia coli* and mouse
E. Elleingand, C. Gerez, S. Sauge-Merle, J.P. Laulhère, S. Un, H. Rubin, M. Fontecave
Eur. J. Biochem. 1998, 258, 485-490

115. Flavin-oligonucleotide conjugates : sequence specific photocleavage of DNA
C. Frier, J.F. Mouscadet, J.L. Decout, C. Auclair, M. Fontecave
J. Chem. Soc., Chem. Commun. 1998, 2457-2458

116. O_2 activation and aromatic hydroxylation performed by diiron complexes
S. Ménage, J.B. Galey, J. Dumats, G. Hussler, M. Seité, I. Gautier-Luneau, G. Chottard, M. Fontecave
J. Am. Chem. Soc. 1998, 120, 13370-13382

1999

117. Enantioselective sulfoxidation as a probe for a metal-based mechanism in H_2O_2-dependent oxidations catalyzed by a diiron complex
C. Duboc-Toia, S. Ménage, R. Ho, L. Que Jr, C. Lambeaux, M. Fontecave

Inorg. Chem. 1999, 38, 1261-1268

118. Ribonucleotide reductases : Metal and free radical interplay
E. Mulliez, M. Fontecave
Coord. Chem. Rev. 1999, 185-186, 775-793

119. Crystal structure of NAD(P)H : Flavin oxidoreductase from *Escherichia coli*
M. Ingelman, S. Ramaswamy, V. Nivière, M. Fontecave, H. Eklund
Biochemistry 1999, 38, 7040-7049

120. Calcein as a fluorescent probe for ferric iron. Application to iron nutrition in plant cells
F. Thomas, G. Serratrice, C. Béguin, E. Saint Aman, J.L. Pierre, M. Fontecave, J.P. Laulhère
J. Biol. Chem. 1999, 274, 13375-13383

121. An active ribonucleotide reductase from *Arabidopsis thaliana* : cloning, expression and characterization of the large subunit
S. Sauge-Merle, D. Falconnet, M. Fontecave
Eur. J. Biochem. 1999, 266, 62-69

122. Electrochemical behaviour of (µ-oxo) di-aquo diiron(III) complexes in organic media. generation of new monuclear $Fe(II)(L)_2(CH_3CN)_2$ complexes (L= 2,2'-bipyridine and (-)4,5 pinene 2,2'-bipyridine)
M.N. Dunand-Sauthier, A. Deronzier, C. Duboc-Toia, M. Fontecave, K. Gorgy, J.C. Leprêtre, S. Ménage
J. Electroanal. Chem. 1999, 469, 53-62

123. ^{31}P Nuclear Magnetic Resonance study of the flavoprotein component of the *Escherichia coli* Sulfite Reductase
A. Evrard, M. Zeghouf, M. Fontecave, C. Roby, J. Covès
Eur. J. Biochem. 1999, 261, 430-437

124. The NAD(P)H : flavin oxidoreductase from *Escherichia coli* : Evidence for a new binding mode for reduced pyridine nucleotide
V. Nivière, F. Fieschi, J.L. Decout, M. Fontecave
J. Biol. Chem. 1999, 274, 18252-18260

125. Assembly of 2Fe-2S and 4Fe-4S clusters in the anaerobic ribonucleotide reductase from *Escherichia coli*
S. Ollagnier, C. Meier, E. Mulliez, J. Gaillard, V. Schuenemann, A. Trautwein, T. Mattioli, M. Lutz, M. Fontecave
J. Am. Chem. Soc. 1999, 121, 6344-6350

126. Glycyl radical enzymes. A conservative structural basis for radicals
H. Eklund, M. Fontecave
Structure 1999, 7, 257-262

127. Iron-sulfur interconversions in the anaerobic ribonucleotide reductase from *E. coli*

E. Mulliez, S. Ollagnier, M. Fontecave, M. Cremonini, C. Luchinat, C. Meier, A. Trautwein
J. Biol. Inorg. Chem. 1999, 4, 614-620

128. The lipoate synthase from *Escherichia coli* is an iron-sulfur protein
S. Ollagnier, M. Fontecave
FEBS Lett 1999, 453, 25-28

129. Iron and activated oxygen species in biology : the basic chemistry
J.L. Pierre, M. Fontecave
BioMetals 1999, 12, 195-199

130. Overexpression of the Flavin Adenine Dinucleotide binding domain of the sulfite reductase flavoprotein component from *Escherichia coli* and its inhibition by iodonium diphenyl chloride
J. Covès, C. Lebrun, G. Gervasi, P. Dalbon, M. Fontecave
Biochem. J. 1999, 342, 465-472

131. The anaerobic ribonucleotide reductase from *Escherichia coli*: The small protein is an activating enzyme containing a $[4Fe\text{-}4S]^{2+}$ center
J. Tamarit, E. Mulliez, C. Meier, A. Trautwein, M. Fontecave
J. Biol. Chem. 1999, 274, 31291-31296

132. 5-deazaflavins : new very efficient DNA photosensitisers, synthesis of oligonucleotide conjugates
I. Girault, J.-L. Ravanat, C. Frier, M. Fontecave, J. Cadet, J.-L. Decout
Nucleosides & Nucleotides 1999, 18, 1345-1347

2000

133 2-trimethylsilylethanethiol in nucleoside chemistry. A short route for preparing thionucleosides and their methyl disulfides
S. Chambert, I. Gauthier-Luneau, M. Fontecave, J.L. Decout
J. Org. Chem. 2000, 65, 249-253

134. Reaction of the Desulfoferrodoxin from *Desulfoarculus baarsii* with superoxide anion. Evidence for superoxide reductase activity
M. Lombard, M. Fontecave, D. Touati, V. Nivière
J. Biol. Chem. 2000, 275, 115-121

135. Iron-sulfur center of biotin synthase and lipoate synthase
S. Ollagnier-de-Choudens, Y. Sanakis, K.S. Hewiston, P. Roach, J.E. Baldwin, E. Munck, M. Fontecave
Biochemistry 2000, 39, 4165-4173

136. Hydroxylation of alkanes catalyzed by a chiral µ-oxo diferric complex : a metal-based mechanism
Y. Mekmouche, C. Duboc-Toia, S. Ménage, C. Lambeaux, M. Fontecave

J. Mol. Catal. 2000, 156, 85-89

137. The activating component of the anaerobic ribonucleotide reductase from *Escherichia coli* : an iron-sulfur center with only three cysteines
J. Tamarit, C. Gerez, C. Meier, E. Mulliez, A. Trautwein, M. Fontecave
J. Biol. Chem. 2000, 275, 15669-15675

138. Four crystal structures of the 60 kDa flavoprotein monomer of the sulfite reductase reveal a disordered flavodoxin-like module
A. Gruez, D. Pignol, M. Zeghouf, J. Covès, M. Fontecave, J.L. Ferrer, J. Fontecilla-Camps
J. Mol. Biol. 2000, 299, 199-212

139. Superoxide reductase as a unique defense system against superoxide stress in the microaerophile *Treponema pallidum*
M. Lombard, D. Touati, M. Fontecave, V. Nivière
J. Biol. Chem. 2000, 275, 27021-27026

140. Molecular dissection as a tool for simplification : the example of the *Escherichia coli* sulfite reductase
J. Covès, M. Zeghouf, M. Fontecave
Recent Res. Dev. Biochem. 2000, 2, pp. 97-107

141. A simplified functional version of sulfite reductase
M. Zeghouf, M. Fontecave, J. Covès
J. Biol. Chem. 2000, 275, 37651-37656

2001

142. Activation of cyclohexylhydroperoxide by diiron complexes : a new route for selective peroxide decomposition
A. Bréhéret, C. Lambeaux, S. Ménage, M. Fontecave, F. Dallemer, E. Fache, J.L. Pierre, P. Chautemps, M.T. Averbusch-Pouchot
C.R. Acad. Sci. Chemistry 2001, 4, 27-34

143. Ribonucleotide reductase from *Pyrococcus furiosus*
M. Fontecave
Methods in Enzymology, Academic Press, 2001, 134, 215-227

144. H_2O_2 dependent Fe-catalyzed oxidations : control of the active species
Y. Mekmouche, S. Ménage, C. Duboc-Toia, M. Fontecave, J.B. Galey, C. Lebrun, J. Pécaut
Angew. Chem., Int. Ed. Engl. 2001, 40, 949-951

145. Activation of class III ribonucleotide reductase by flavodoxin : a protein radical-driven electron transfer to the iron-sulfur center
E. Mulliez, D. Padovani, M. Atta, C. Alcouffe, M. Fontecave
Biochemistry 2001, 40, 3730-3736

146. Mobilization of selenite by *Ralstonia metallidurans* CH_{34}
M. Roux, G. Sarret, I. Pignot-Paintrand, M. Fontecave, J. Covès
Applied and Environmental Microbiology 2001, 67, 769-773

147. Re-examination of dinitrosyl iron complexes during reaction of S-nitrosothiols with Fe(II)
S. Costanzo, S. Ménage, R. Buonomo, M. Fontecave
Inorganica Chemica Acta 2001, 318, 1-7

148. Superoxide reductase from *Desulfoarculus baarsii* : reaction mechanism and role of glutamate 47 and lysine 48 in catalysis
M. Lombard, C. Houée-Levin, D. Touati, M. Fontecave, V. Nivière
Biochemistry 2001, 40, 5032-5040

149. Sensitivity of G-values to changes in protein structure : a high field EPR study of mutants of ribonucleotide reductase
S. Un, C. Gerez, E. Elleingand, M. Fontecave
J. Am. Chem. Soc. 2001, 123, 3048-3054

150. Activation of class III ribonucleotide reductase by thioredoxin
D. Padovani, E. Mulliez, M. Fontecave
J. Biol. Chem. 2001, 276, 9587-9589

151. Pulse radiolysis on superoxide reductase from *Treponema pallidum*
V. Nivière, M. Lombard, M. Fontecave, C. Houée-Levin
FEBS Letters 2001, 497, 171-173

152. Activation of class III ribonucleotide reductase from *E.coli*. The electron transfer from the iron sulfur center to S-adenosylmethionine
D. Padovani, F. Thomas, A.X. Trautwein, E. Mulliez, M. Fontecave
Biochemistry 2001, 40, 6713-6719

153. Mechanisms of formation of free radicals in biological systems
M. Fontecave, J.L. Pierre
C.R. Acad. Sci. Chemistry 2001, 4, 1-8

154. Iron-sulfur cluster assembly : characterization of IscA and evidence for a specific and functional complex with ferredoxin
S. Ollagnier-de Choudens, T. Mattioli, Y. Takahashi, M. Fontecave
J. Biol. Chem. 2001, 276, 22604-22607

155. Adenosylmethionine as a source of 5'-deoxyadenosyl radicals
M. Fontecave, E. Mulliez, S. Ollagnier-de Choudens
Current Opinion in Chemical Biology 2001, 5, 506-511

156. An easy electrochemical procedure for tailoring thin films containing the $[Fe(bpy)_2(CH_3CN)_2]^{2+}$ and/or $[Fe(bpy)_3]^{2+}$ - like cores. Application to the design of a modified electrode with a supramolecular structure

K. Gorgy, M.N. Collomb, J.C. Leprêtre, A. Deronzier, C. Duboc-Toia, S. Ménage, M. Fontecave
Electrochemical Communications 2001, 3, 686-691

2002

157. The iron-sulfur center of biotin synthase : site-directed mutants
K.S. Hewiston, S. Ollagnier-de Choudens, Y. Sanakis, N.M. Shaw, P. Roach, J.E. Baldwin; E. Munck, M. Fontecave
J. Biol. Inorg. Chem. 2002, 7, 83-93

158. Biochemical and electron paramagnetic resonance study of the iron superoxide dismutase from *Plasmodium falciparum*
S. Gratepanche, S. Ménage, D. Touati, R. Wintjens, M. Fontecave, A. Masset, C. Slomianny, D. Camus, D. Dive
Mol. and Biochem. Parasitol. 2002, 120, 237-246

159. Sulfide oxidation by hydrogen peroxide catalyzed by iron complexes : two metal centers are better than one
Y. Mekmouche, H. Hummel, R.Y.N. Ho, L. Que Jr, V. Schünemann, F. Thomas, A.X. Trautwein, C. Lebrun, K. Gorgy, J.C. Leprêtre, M.N. Collomb, A. Deronzier, M. Fontecave, S. Ménage
Chemistry, A European Journal 2002, 8/5, 1196-1204

160. Fluorescent deazaflavin-oligonucleotide probes for selective detection of DNA
C. Dueymes, J.L. Décout, P. Peltié, M. Fontecave
Angew. Chem., Int. Ed. Engl. 2002, 41, 486-489

161. Deoxyribonucleotide synthesis in anaerobic microorganisms : the class III ribonucleotide reductase
M. Fontecave, E. Mulliez, D. Logan
Progress in Nucleic Acid Research and Molecular Biology 2002, 72, 95-127

162. A diferric peroxo complex with an unprecedented spin configuration : an $S = 2$ system arising from an $S = 5/2$, 1/2 pair
H. Hummel, Y. Mekmouche, C. Duboc-Toia, R.Y.N. Ho, L. Que, V. Schunemann, F. Thomas, A. Trautwein, C. Lebrun, M. Fontecave, S. Ménage
Angew. Chem., Int. Ed. Engl. 2002, 41, 617-620

163. Enzymatic modification of tRNAs : MiaB is an iron-sulfur protein
F. Pierrel, G.R. Björk, M. Fontecave, M. Atta
J. Biol. Chem. 2002, 277, 13367-13370

164. Reductive cleavage of S-adenosylmethionine by biotin synthase from *Escherichia coli*
S. Ollagnier-de Choudens, Y Sanakis, K. Hewitson, P. Roach, E. Münck, M. Fontecave
J. Biol. Chem. 2002, 277, 13449-13454

165. Tyrosyl radicals and ribonucleotide reductase
M. Fontecave, C. Gerez
Methods in Enzymology 2002, 348, 21-30

166. Biotin synthase is a pyridoxal phosphate-dependent cysteine desulfurase
S. Ollagnier-de Choudens, E. Mulliez, K. Hewitson, M. Fontecave
Biochemistry 2002, 41, 9145-9152

167. Identification of Iron (III) peroxo species in the active site of the superoxide reductase SOR from *Desulfoarculus baarsii*
C. Mathé, T.A. Mattioli, O. Horner, M. Lombard, J.M. Latour, M. Fontecave, V. Nivière
J. Am. Chem. Soc. 2002, 124, 4966-4967

168. Chemistry for an essential biological process : the reduction of ferric iron
J.L. Pierre, M. Fontecave, R.R. Crichton
BioMetals 2002, 15, 341-346

169. Redox-dependent structural changes in the superoxide reductase from *Desulfoarculus baarsii* and *Treponema pallidum* : a FTIR study
C. Berthomieu, F. Dupeyrat, M. Fontecave, A. Vermiglio, V. Nivière
Biochemistry 2002, 41, 10360-10368

170. The PLP-dependent biotin synthase from *Escherichia coli* : mechanistic studies
S. Ollagnier-de Choudens, E. Mulliez, M. Fontecave
FEBS Letters 2002, 532, 465-468

2003

171. Hydrolysis of phosphodiesters by diiron complexes : design of inequivalent iron sites in purple acid phosphatases models
F. Verge, C. Lebrun, M. Fontecave, S. Ménage
Inorg. Chem. 2003, 42, 499-507

172. Mechanism and substrate specificity of the flavin reductase ActVB from *Streptomyces coelicolor*
L. Filisetti, M. Fontecave, V. Nivière
J. Biol. Chem. 2003, 278, 296-303

173. A very high field EPR study of glycyl radical enzymes
C. Duboc-Toia, A.K. Hassan, E. Mulliez, S. Ollagnier-de Choudens, M. Fontecave, C. Leutwein, J. Heider
J. Am. Chem. Soc. 2003, 125, 38-39

174. A metal binding site in the catalytic subunit of anaerobic ribonucleotide reductase
D. Logan, E. Mulliez, K.M. Larsson, S. Bodevin, M. Atta, P.E. Garnaud, B.M. Sjöberg, M. Fontecave
Proc. Natl Acad. Sci. 2003, 100, 3826-3831

175. Biological radical sulfur insertion reactions
M. Fontecave, S. Ollagnier-de Choudens, E. Mulliez
Chem. Rev. 2003, 103,2149-2166

176. Chiral at metal bis (diimine)-Ruthenium (II) complexes with achiral ligands : a new type of enantioselective catalyst
M. Chavarot, S. Ménage, O. Hamelin, F. Charnay, J. Pécaut, M. Fontecave
Inorg. Chem 2003, 42, 4810-4816

177. SufA from *Erwinia chrysanthemi* : characterization of a scaffold protein required for iron-sulfur cluster assembly
S. Ollagnier-de Choudens, L. Nachin, Y. Sanakis, L. Loiseau, F. Barras, M. Fontecave
J. Biol. Chem. 2003, 278, 17993-18001

178. MiaB protein from *Thermotoga maritima* : characterization of an extremely thermophilic tRNA-methylthiotransferase
F. Pierrel, H.L. Hernandez, M.K. Johnson, M. Fontecave, M. Atta
J. Biol. Chem. 2003, 278, 29515-29524

179. Synthesis of 8-vinyl-adenosine di- and tri-phosphate : evaluation of the diphosphate compound on ribonucleotide reductase
P. Lang, C. Gerez, D. Tritsch, M. Fontecave, J.F. Biellmann, A. Burger
Tetrahedron 2003, 59, 7315-7322

180. Biogenesis of Fe-S cluster by the Suf system : SufS and SufE form a new type of cysteine desulfurase
L. Loiseau, S. Ollagnier-de Choudens, L. Nachin, M. Fontecave, F. Barras
J. Biol. Chem. 2003, 278, 38352-38359

181. Catalytic asymmetric sulfoxidation by chiral manganese complexes ; acetylacetonate as a chirality switch
S. Schoumacker, O. Hamelin, J. Pécaut, M. Fontecave
Inorg. Chem. 2003, 42, 8110-8116

182. Mechanistic studies of the SufS-SufE cysteine desulfurase : evidence for sulfur transfer from SufS to SufE
S. Ollagnier-de Choudens, D. Lascoux, L. Loiseau, F. Barras, E. Forest, M. Fontecave
FEBS Letters 2003, 555, 263-267

2004

183. Discovery of superoxide reductase : an historical perspective
V. Nivière, M. Fontecave
J. Biol. Inorg. Chem. 2004, 9, 119-123

184. S-adenosylmethionine : nothing goes to waste
M. Fontecave, M. Atta, E. Mulliez
Trends in Biochemical Sciences 2004, 29, 243-249

185. Crystallization-induced asymmetric transformation of chiral-at-metal ruthenium (II) complexes bearing achiral ligands
O. Hamelin, J. Pécaut, M. Fontecave
Chem. Eur. J. 2004, 10, 2548-2554

186- Mössbauer characterization of an unusual high-spin side-on peroxo-Fe species in the active site of superoxide reductase from *desulfoarculus baarsii.* Density functional calculations on related models.
O. Horner, J-M. Mouesca, J-L. Oddou, C. Jeandey, V. Nivière, T.A. Mattioli, C. Mathé, M. Fontecave, P. Maldivi, P. Bonville, J.A. Halfen, J-M. Latour
Biochemistry 2004, 43, 8815-8825

187-New flavin and deazaflavin oligonucleotide conjugates for the amperometric detection of DNA hybridization
S. Cosnier, C. Gondran, C. Dueymes, P. Simon, M. Fontecave, J.-L. Décout
Chem. Commun. 2004, 1624-1625

188- Mechanistic tuning of hydrocarbon oxidations by H2O2 catalyzed by hexacoordinate ferrous complexes
Y. Mekmouche, S. Ménage, J. Pécaut, C. Lebrun, L. Reilly, V. Schuenemann, A. Trautwein, M. Fontecave
Eur. J. Inorg. Chem. 2004, 3163-3171

189-SufA/IscA : reactivity studies of a class of scaffold proteins involved in Fe-S cluster assembly
S. Ollagnier-de-Choudens, Y. Sanakis, M. Fontecave
J. Biol. Inorg. Chem. 2004, 9, 828-838

190- A two-component flavin-dependent monooxygenase involved in actinorhodin biosynthesis in Streptomyces coelicolor
J. Valton, L. Filisetti, M. Fontecave, V. Nivière
J. Biol. Chem. 2004, 279, 44362-44369

191- MiaB protein is a bifunctional « radical-SAM » enzyme involved in thiolation and methylation of tRNA
F. Pierrel, T. Douki , M. Fontecave, M. Atta
J. Biol. Chem. 2004, 279, 47555-47563

192- Assignment of the ^{1}H, ^{15}N and ^{13}C resonances of SufA from *Escherichia coli* involved in Fe-S cluster biosynthesis

N. Duraffourg, S. Ollagnier-de Choudens, M. Fontecave, L. Loiseau, F. Barras, D. Marion, L. Blanchard
J. Biomol NMR 2004, 30, 379-380

2005

193- Activation of oxaziridines by Lewis Acids; Application in enantioselective sulfoxidations.
S. Schoumacker, O. Hamelin, S. Téti, J. Pécaut, M. Fontecave
J. Org. Chem. 2005, 70, 301-308

194- DNA Detection through Signal Amplification using NADH:Flavin Oxidoreductase and Oligonucleotide-Flavin Conjugates as Cofactors
P. Simon, C. Dueymes, M. Fontecave, J-L. Décout
Angew. Chem. 2005, 44, 2764-2767

195- The flavin reductase ActVB from *Streptomyces coelicolor*. Characterization of the electron transferase activity of its flavoprotein form.
L. Filisetti, J. Valton, M. Fontecave, V. Nivière
Febs letters 2005, 579, 2817-2820

196- Proton electro-reduction catalyzed by cobaloximes : functional models for hydrogenases
M. Razavet, V. Artero, M. Fontecave
Inorg. Chem. 2005, 44, 4786-4795

197- Some general principles for designing electrocatalysts with hydrogenase acitivity
V. Artero, M. Fontecave
Coord. Chem Rev 2005, 249, 1518-1535

198- Activation of the anaerobic ribonucleotide reductase by S-adenosylmethionine
S. Gambarelli, F. Luttringer, D. Padovani, E. Mulliez, M. Fontecave
ChemBioChem 2005, 6, 1960-1962

199- Analysis of the heteromeric CsdA-CsdE cyeteine desulfurase, assisting Fe-S cluster biogenesis iun Escherichia coli
L. Loiseau, S. Ollagnier-de-Choudens, D. Lascoux , E. Forest, M.Fontecave, F. Barral
J. Biol. Chem 2005, 280, 26760 - 26769

200- Quinolinate synthetase, an iron-sulfur enzyme in NAD biosynthesis
S. Ollagnier-de-Choudens, L. Loiseau, Y. Sanakis , F. Barras , M. Fontecave
Febs Letters 2005, 579, 3737-3743

201- Mechanisms of iron-sulfur cluster assembly
M. Fontecave, S. Ollagnier-de-Choudens, B. Py, F. Barras
J. Biol. Inorg. Chem. 2005, 10, 713-721

202- Biochemical characterization of HydE and hydG Iron-only hydrogenase maturation enzymes from Thermotoga maritima
J.K. Rubach, X. Brazzolotto, J. Gaillard, M. Fontecave
FEBS letters 2005, 579, 5055-5060

203- Chiral-at-metal complexes as asymmetric catalysts
M. Fontecave, O. Hamelin, S. Ménage
Topics in Organometallic Chemistry 2005, 15, 271-288

2006

204- An aromatic hydroxylation reaction catalyzed by a two-component FMN-dependent monooxygenase : the ActVB-ActVA system from *Streptomyces coelicolor*
J. Valton, M. Fontecave, T. Douki, S.G. Kendrew, V. Nivière
J. Biol. Chem. 2006, 281, 27-35

205- The spore photoproduct lyase repairs the 5S- and not the 5R-configured spore photoproduct DNA lesion
M.G. Friedel, O. Berteau, J. Carsten Pieck, M. Atta, S. Ollagnier-de-Choudens, M. Fontecave, T. Carrell
Chem. Commun. 2006, 4, 445-447

206- The [Fe-Fe]-hydogenase maturation protein HydF from *Thermotoga maritima* is a GTPase with an iron-sulfur cluster
X. Brazzolotto, J.K. Rubach, J. Gaillard, S. Gambarelli, M. Atta, M. Fontecave
J. Biol. Chem. 2006, 281, 769-774

207- Ni(xsbsms)Ru(CO)2(Cl)2 : a bioinspired nickel-ruthenium functional model of NiFe hydrogenase
Y. Oudart, V. Artero, J. Pécaut, C. Lebrun, M. Fontecave
Inorg. Chem.. 2006, 45, 4334-4336

208- Iron-sulfur cluster biosynthesis : characterization of Escherichia coli CyaY as an iron donor for the assembly of [2Fe-2S] clusters in the scaffold IscU
G. Layer, S. Ollagnier-de-Choudens, Y. Sanakis, M. Fontecave
J. Biol. Chem. 2006, 281, 16256-16263

209- Iron-sulfur clusters : ever expanding roles
M. Fontecave
Nature Chemical Biology 2006, 2, 171-174

210- Dinucleotide spore photoproduct, a minimal substrate of the DNA repair spore photoproduct lyase enzyme from *Bacillus subtilis*
A.Chandor, O. Berteau, T. Douki, D. Gasparutto, S. Gambarelli, Y. Nicolet, Y. Sanakis, S. Ollagnier-de-Choudens, M. Atta, M. Fontecave
J. Biol. Chem. 2006, 281, 26922-26931

211- Hydroxylation of alkanes using H2O2 or tert-BuOOH catalyzed by silica-based Fe(III) interphase catalysts
Y.L. Luo, L. Zhang, M.H. Zong, S. Ménage, M. Fontecave

Polish J. Chem. 2006, 80, 1407-1414

212- Sequence-specific nucleic acid cleavage induced by peptide nucleic acid conjugates that can be enzyme-activated
P. Simon, J-L. Décout, M. Fontecave
Angew.Chem., Int. Ed. Engl.. 2006, 45, 6859-6861

2007

213- Cobaloximes as functional models for hydrogenases. 2. Proton electroreduction catalyzed by difluoroboryl-bis(dimethylglyoximato)-
cobalt(II) complexes in organic media
C. Baffert, V. Artero, M. Fontecave
Inorg. Chem.. 2007, 46, 1817-1824

214- Ru- and Fe- based N,N'-bis(2-pyridylmethyl)-N-methyl-(1S,2S)-1,2-cyclohexanediamine complexes immobilised on mesoporous MCM-41: Synthesis, characterization and catalytic applications
T. Soudiresane, S. Selvakumar, S. Ménage, O. Hamelin, M. Fontecave, A.P. Singh
J. Mol. Catal. A: Chemical 2007, 270, 132-143

215- Characterization of the DNA repair spore photoproduct lyase enzyme from *Clostridium acetobutylicum* : a radical-SAM enzyme
A.Chandor, T. Douki, D. Gasparutto, S. Gambarelli, Y. Sanakis, Y. Nicolet, S. Ollagnier-de-Choudens, M. Atta, M. Fontecave
Comptes Rendus de l'académie des Sciences 2007, 10, 756-765

216- ErpA: An iron sulfur (Fe/S) proten of the A-type essential for respiratory metabolism in *Escherichia coli*
L. Loiseau, C. Gerez, M. Bekker, S. Ollagnier-de-choudens, B. Py, Y. Sanakis, J. Teixeira de Mattos, M. Fontecave, F. Barras
Proc. Natl Acad. Sci. 2007, 104, 13626-13631

217- The SUF iron-sulfur cluster biosynthetic machinery : sulphur transfer from the SufS-SufE complex to SufA
M. Sendra, S. Ollagnier-de-Choudens, D. Lascoux , Y. Sanakis, M. Fontecave
FEBS Letters 2007, 581, 1362-1368

218- SufE transfers sulfur from SufS to SufB for iron-sulfur cluster assembly
G. Layer, S. Aparna Gaddam, S. Ollagnier-de-Choudens, D. Lascoux, M. Fontecave, F. Wayne Outten
J. Biol. Chem. 2007, 282, 13342-13350

219- MiaB, a bifunctional Radical-*S*-adenosylmethionine enzyme involved in the thiolation and methylation of tRNA, contains two essential [4Fe-4S] clusters.
H. L. Hernández, F. Pierrel, E. Elleingand, R. García-Serres, Boi Hanh Huynh, M. K. Johnson, M. Fontecave, M. Atta

Biochemistry 2007, 46, 5140-5147

220- Binuclear Nickel-Ruthenium complexes as functional bio-inspired models of [NiFe] hydrogenases.
Y. Oudart, V. Artero, J. Pécaut, C. Lebrun, M. Fontecave
Eur. J. Inorg. Chem. 2007, 2613-2626

221- Characterization of Arabidopsis thaliana SufE2 and SufE3 : functions in chloroplast iron-sulfur cluster assembly and NAD synthesis
N. Murthy, S. Ollagnier-de-Choudens, Y. Sanakis, S.E. Abdel-Ghany, C. Rousset, H. Ye, M. Fontecave, E.A.H. Pilon-Smits, M. Pilon
J. Biol. Chem. 2007, 282, 18254-18264

222- Tricarbonylmanganese(I)-lysosyme : a structurally characterized organometallic protein
M. Razavet, V. Artero, C. Cavazza, Y. Oudart, C. Lebrun, J-C. Fontecilla-Camps, M. Fontecave
Chem. Commun. 2007, 27, 2805-2807

223- Chiral-at-Metal ruthenium complex as a metalloligand for asymmetric catalysis
O. Hamelin, M. Rimboud, J. Pécaut, M. Fontecave
Inorg. Chem. 2007, 46, 5354-5360

224- tRNA-modifying MiaE protein from *Salmonella typhimurium* is a non heme diiron monooxygenase
C. Mathevon, F. Pierrel, J-L. Oddou, R. Garcia-Serres, G. Blondin, J-M. Latour, S. Ménage, S. Gambarelli, M. Fontecave, M. Atta
Proc. Natl. Acad. Sci. 2007, 104, 13295-13300

225- Cobalt stress in Escherichia coli: the effect on the iron-sulfur ptoteins
C. Ranquet, S. Ollagnier-de-Choudens, L. Loiseau, F. Barras, M. Fontecave
J. Biol. Chem. 2007, 282, 30442-30451

2008

226- Cobaloxime-based photocatalytic devices for hydrogen production
A. Fihri, V. Artero, M. Razavet, C. Baffert, W. Liebl, M. Fontecave
Angew. Chem. 2008, 47, 564-567

227- Mimicking NiFe hydrogenases: Nickel-based electrocatalysts for hydrogen production
S. Canaguier, V. Artero, M. Fontecave
Dalton Trans. 2008, 315 - 325

228- Iron-Sulfur biosynthesis: mechanisms of cluster assembly and transfer
M. Fontecave, S. Ollagnier-de-Choudens
Arch. Biochem. Biophys. 2008, 474, 226-237

229- NfuA, a new factor required for maturing Fe/S proteins in Escherichia coli under oxidative stress conditions
S. Angelini, C. Gerez, S. Ollagnier-de-Choudens, Y. Sanakis, M. Fontecave, F. Barras, B. Py
J. Biol. Chem. 2008, 283, 14084-14091

230- The two-component FMN-dependent monooxygenase ActVA-ActVB from *Streptomyces coelicolor* : mechanism and regulation
J. Valton, C. Mathevon, M. Fontecave, V. Nivière, D.P. Ballou
J. Biol. Chem. 2008, 283, 10287-10296

231- From iron and cysteine to iron-sulfur clusters: the biosynthetic protein machineries
M. Fontecave, S. Ollagnier-de-Choudens, B. Py, F. Barras
Escherichia coli and *Salmonella: cellular and molecular biology* 2008 Chapter 3.6.3.14
A. Böck, R. Curtiss III, J. B. Kaper, P. D. Karp, F. C. Neidhardt, T. Nyström, J. M. Slauch, and C. L. Squires (ed.), EcoSal; ASM Press, Washington, D.C.

232- New light on methylthiolation reactions
M. Fontecave, E. Mulliez, M. Atta
Chemistry and Biology 2008,15, 209-210.

233 X-ray Structure of the [FeFe]-Hydrogenase Maturase HydE from *Thermotoga maritima.*
Y. Nicolet, J. K. Rubach, M. C. Posewitz, P. Amara, C. Mathevon,
M. Atta, M. Fontecave, J. C. Fontecilla-Camps
J. Biol. Chem. 2008, 283, 18861-18872

234 Hydrogen evolution catalyzed by {$CpFe(CO)_2$}-based complexes
V. Artero, M. Fontecave
Comptes Rendus de l'Académie des Sciences 2008, 11, 926-931

235- A new polydendate ligand and catalytic properties of the corresponding ruthenium complex during sulfoxidation and alkene epoxidation
O. Hamelin, S. Ménage, F. Charnay, M. Chavarot, J.L. Pierre, M. Fontecave
Inorg. Chem. 2008, 47, 6413-6420

236- Efficient H_2-producing photocatalytic systems based on cyclometalated iridium- and tricarbonylrhenium-diimine photosensitizers and cobaloxime catalysts
A. Fihri, V. Artero, A. Pereira, M. Fontecave
Dalton Trans. 2008, 5567-5569

237-The [4Fe-4S] cluster of Quinolinate Synthase from *Escherichia coli*: investigation of cluster ligands
C. Rousset, M. Fontecave, S. Ollagnier de Choudens
FEBS Letters 2008, 582, 2937–2944

238- Combined NMR and DFT studies for the absolute configuration elucidation of the spore photoproduct, a UV-induced DNA lesion

C. Mantel, A. Chandor, D. Gasparutto, T. Douki, M. Atta, M. Fontecave, P-A. Bayle, J-M. Mouesca, M. Bardet
J. Am. Chem. Soc. 2008, 130, 16978-16984

239- DNA repair and free radicals: New insights into the mechanism of spore photoproduct lyase revealed by single mutation.
A. Chandor-Proust, O. Berteau, T. Douki, D. Gasparutto, S. Ollagnier-de-Choudens, M. Atta, M. Fontecave
J. Biol. Chem. 2008, 283, 36361-36368

2009

240- The role of the maturase HydG in [FeFe]-hydrogenase active site synthesis and assembly
E. Pilet, Y. Nicolet, C. Mathevon, T. Douki, J. Fontecilla-Camps, M. Fontecave
Febs Letters, 2009, 583, 506-11

241- Synthesis, crystal structure, magnetic properties and reactivity of a Ni-Ru model of NiFe hydrogenases with a pentacoordinated triplet (S=1) Ni^{II} center
Y. Oudart, V. Artero, L. Norel, C. Train, J. Pécaut, M. Fontecave
*J. Organomet. Chem.*2009, 694, 2866-2869

242- Native E. coli SufA, co-expressed with SufBCDSE, purifies as a [2Fe-2S] protein and acts as an Fe-S transporter to Fe-S target enzymes
V. Gupta, M. Sendra, S.G. Naik, H.K. Chahal, B.H. Huynh, F. W. Outten, M. Fontecave, S. Ollagnier-de-Choudens
J. Am. Chem. Soc. 2009, 131, 6149-6153

243- Cyclopentadienyl Nickel–Ruthenium Catalysts for Biomimetic Hydrogen Evolution: Electrocatlytical properties and Mechanistic DFT Studies
S. Canaguier, L. Vaccaro, V. Artero, R. Ostermann, J. Pécaut, M. J. Field, M. Fontecave
Chemistry 2009, 15, 9350-9364

244- The Zn center of the anaerobic ribonucleotide reductase from *E. coli*.
F. Luttringer, E. Mulliez, B. Dublet, D. Lemaire, M. Fontecave
J. Biol. Inorg. Chem. 2009, 14, 923–933

245- Snapshots of Dynamics in Synthesizing N^6-isopentenyladenosine at tRNA Anticodon
S. Chimnaronk, F. Forouhar, J. Sakai, M. Yao, C. M. Tron, M. Atta, M. Fontecave, J. F. Hunt, I. Tanaka
Biochemistry 2009, 48, 5057-5065

246- RNA-modifying metalloenzymes
M. Atta, M. Fontecave, E. Mulliez

dans *DNA and RNA Modification Enzymes: Comparative Structure, Mechanism, Functions, Cellular, Interactions and Evolution* edited by Henri Grosjean. ©2009 Ch. 24, 347-357 ; H. Grosjean Ed. (2009) Landes Bioscience, Austin TX USA.

247- From Hydrogenase Mimics to Noble-Metal Free Hydrogen-Evolving Electrocatalytic Nanomaterials
A. Le Goff, V. Artero, B. Jousselme, N. Guillet, R. Métayé, A. Fihri, S. Palacin, M. Fontecave
Science 2009, 326, 1384-1387

248- Cobalt and Nickel Diimine-Dioxime Complexes as Molecular Electrocatalysts for Hydrogen Evolution with Low Overvoltage
P.-A. Jacques, V. Artero, J. Pécaut, M. Fontecave
Proc. Natl. Acad. Sci 2009, 106, 20627-20632

249- The CsdA cysteine desulfurase interacts with SufBCD proteins in Fe/S biogenesis and with CsdL (ex-YgdL), a ubiquitin-modifying like protein, in a new sulfur transfer pathway.
V.Trotter, D.l Vinella, L. Loiseau, S. Ollagnier- de Choudens, M. Fontecave, F. Barras
Mol. Microbiol. 2009, 74, 1527-1542

2010

250- Mechanism of Hydrogen Evolution Catalyzed by NiFe Hydrogenases: Insights from a Ni-Ru Model Compound
L. Vaccaro, V. Artero, S. Canaguier, M. Fontecave, M. J. Field
Dalton Trans 2010 39 3043-3049

251- Facile and tunable functionalization of carbon nanotube electrodes with ferrocene by covalent coupling and -stacking interactions: application to glucose biosensing
A. Le Goff, F. Moggia, N. Debou, P. Jegou, V. Artero,
M. Fontecave, B. Jousselme, S. Palacin
J. Electroanal. Chem. 2010, 641, 57-63

252- Maturation of [FeFe]-hydrogenases: Structures and Mechanisms
Y. Nicolet, J. Fontecilla-Camps, M. Fontecave
Int. J Hydr. Ener. 2010, 35, 10750-10760

253- Immobilization of FeFe hydrogenase mimics onto carbon and gold electrodes by controlled aryldiazonium salt reduction: an electrochemical, XPS and ATR-IR study
A. Le Goff, V. Artero, R. Metayé, F. Moggia, B. Jousselme, M. Razavet, P. Tran Ding, S. Palacin, M. Fontecave
Int. J Hydr. Ener. 2010, 35, 10790-10796

254- Understanding life chemistry as molecules: reductionism against vitalism

M. Fontecave
Angew. Chem. Int. Ed. 2010 49, 4016-4019

255- Iron-sulfur Cluster Assembly: the SufBCD complex is a new type of Fe-S scaffold with a flavin redox cofactor
S. Wollers, G. Layer, R. Garcia-Serres, L. Signor, J.-M. Latour, M. Fontecave, S. Ollagnier de Choudens
J. Biol. Chem. 2010, 285, 23331-23341

256- Post-translational modification of ribosomal proteins: Structural and functional characterization of RimO from *Thermotoga maritima*, a Radical-SAM methylthiotransferase.
S. Arragain, R. Garcia-Serres, G. Blondin, T. Douki, M. Clemancey, J.-M.Latour, F. Forouhar, H. Neely, G.T. Montelione, J.F. Hunt, E. Mulliez, M. Fontecave, M. Atta
J. Biol. Chem. 2010, 285, 5792-5801

257- Iron sulfur clusters in « Radical-SAM» enzymes : spectroscopy and coordination
S. Gambarelli, E. Mulliez, M. Fontecave
Dans "Metals in Biology-Applications of High-Resolution EPR to Metalloenzymes" Hanson, Graeme; Berliner, Lawrence (Eds.), Springer
Biological Magnetic Resonance 2010 29, 53-82

258- Water (photo)electrolysis on electrodes engineered using Biological and bioinspired molecular systems
Phong D. Tran, V. Artero, M. Fontecave
Energy Environ. Sci. 2010, 3, 727-747

259- Involvement of mitochondrial ferredoxin and para-aminobenzoic acid in yeast coenzyme Q biosynthesis.
F. Pierrel, O. Hamelin, T. Douky, S. Kieffer-Jaquinod, U. Mühlenhoff, M. Ozeir, R. Lill, M. Fontecave
Chemistry and Biology 2010 17, 449-459

260- A structural and functional mimic of the active site of NiFe hydrogenases
S. Canaguier, M. Field, Y. Oudart, J. Pécaut, M. Fontecave, V. Artero
Chem. Commun. 2010 46, 5876-5878

261- Identification of Eukaryotic and Prokaryotic Methylthiotransferase for Biosynthesis of 2-Methylthio-*N*6-threonylcarbamoyladenosine in tRNA.
S. Arragain, S.K. Handelman, F. Forouhar, F-Y. Wei, K. Tomizawa, J.F. Hunt, T. Douki, ,M. Fontecave, E. Mulliez, M. Atta
J. Biol. Chem. 2010 285, 28425-28433

262- A genetic analysis of the response of Escherichia coli to cobalt stress
J.-R. Fantino, B. Py, M. Fontecave, F. Barras
Environ. Microbiol. 2010, 12, 2846-2857

263- H_2 evolution and molecular electrocatalysts: Determination of overpotentials and effect of homoconjugation
V. Fourmond, P.-A. Jacques, M. Fontecave, V.Artero

Inorg. Chem. 2010, 49, 10338-10347

264- Catalytic transfer of chiral information from an organic compound to a coordination complex
M. Fontecave
ChemCatChem 2010, 2, 1533-1534

265- S-Adenosylmethionine-dependent radical-based modification of biological macromolecules
M. Atta, E. Mulliez, S. Arragain, F. Forouhar, J. F. Hunt, M. Fontecave
Curr. Op. Struct. Biol. 2010, 20, 684-692.

2011

266- Bioinspired Catalysis at the crossroads between Biology and Chemistry: a remarkable example of an electrocatalytic material mimicking hydrogenases
M. Fontecave, V. Artero
Comptes Rendus de l'Académie des Sciences 2011, 14, 362-371

267-Cp*$^{-}$-Ruthenium-Nickel H_2-evolving electrocatalysts as bioinspired models of NiFe hydrogenases
S. Canaguier, M. Fontecave, V. Artero
Eur. J. Inorg. Chem. 2011, 1094-1099

268- Is the presence of oxygen on an exoplanet a reliable biomarker ?
A. Léger, M. Fontecave, A. Labeyrie, B. Samuel
Astrobiology 2011, 11, 335-341

269- Noncovalent Modification of Carbon Nanotubes with Pyrene-functionalized Ni complexes: Carbon Monoxide Tolerant Catalysts for H2 Evolution and Uptake
P. D. Tran, A. Le Goff, J. Heidkamp, B. Jousselme, N. Guillet, S. Palacin, H. Dau, M. Fontecave, V. Artero
Angew. Chem. Int. Ed. 2011, 50, 1371 –1374

270- Further Characterization of the [FeFe]-Hydrogenase Maturase HydG
C. berggren
, M. V. Cherrier, P. Amara, L. Martin, F. Fauth, E. Fraga, M. Correard, M. Fontecave, Y. Nicolet, J. C. Fontecilla-Camps
Eur. J. Inorg. Chem. 2011,1121-1127

271- A Nickel-Manganese Catalyst as a Biomimic of the active site of NiFe hydrogenases: a Combined Electrocatalytical and DFT Mechanistic Study
V. Fourmond, S. Canaguier, B. Golly, M. J. Field, M. Fontecave, V. Artero
Energy Environ. Sci. 2011, 4, 2417-2427

272- Splitting Water with Cobalt
V. Artero, M. Chavarot-Kerlidou, M. Fontecave
Angew. Chem.Int. Ed. 2011, 50, 7238-7266

273- Functional loss of Cdkal1, a novel enzyme for tRNA modification, causes the development of type 2 diabetes
F.-Y. Wei, T. Suzuki, S. Watanabe, S. Kimura, T. Kaistuka, A. Fujimura, H. Matsui, M. Atta, M. Fontecave, K. Yamagata, T. Suzuki, K. Tomizawa
J. Clin. Invest. 2011, 121, 3598-3608

274- Artificial photosynthesis: from molecular catalysts for light-driven water splitting to photoelectrochemical cells
E. Andreiadis, M. Chavarot-Kerlidou, M. Fontecave, V. Artero
Photochem. Photobiol. 2011, 87, 946-964

275- Coenzyme Q biosynthesis: Coq6 catalyzes the C5-hydroxylation reaction and substrate analogues rescue Coq6 deficiency
M. Ozeir, U. Mühlenhoff, R. Lill, M. Fontecave, F. Pierrel
Chemistry and Biology 2011, 18, 1134-1142

276- Methylations: a radical mechanism
M. Fontecave
Chemistry and Biology 2011, 18, 559-561

277- Light-Driven Bioinspired Water Splitting: Recent Developments in photoelectrode materials
V. Artero, M. Fontecave
Comptes Rendus de l'Académie des Sciences 2011, 14, 799-810

278- Cobalt stress in *Escherichia coli* and *Salmonella enterica* : molecular bases for toxicity and resistance
F. Barras, M. Fontecave
Metallomics 2011, 3, 1130-1134

2012

279- The methylthiolation reaction mediated by the Radical-SAM enzymes.
M. Atta, S. Arragain, M. Fontecave, E. Mulliez, J. F. Hunt, J. D. Luff, F. Forouhar.
Biochim. Biophys. Acta 2012, 1824, 1223-1230

280- Combined experimental – theoretical characterization of the hydrido-cobaloxime [HCo(dmgH)2(P*n*Bu3)]
A. Bhattacharjee, M. Chavarot-Kerlidou, E.S. Andreiadis, M. Fontecave, M. J. Field, V. Artero
Inorg. Chem. 2012, 51, 7087-93

281- Phosphine coordination to a cobalt diimine-dioxime catalyst increases stability during light-driven H_2 production
P. Zhang, P.-A. Jacques, M. Chavarot-Kerlidou, M. Wang, L. Sun, M. Fontecave, V. Artero
Inorg. Chem. 2012, 51, 2115-2120

282- Molecular organisation, biochemical function, cellular role and evolution of NfuA, an atypical Fe-S carrier.
B. Py, C. Gerez, S. Angelini, S. Ollagnier-de Choudens, D. Vinella, L. Loiseau, M. Fontecave, F. Barras
Mol. Microbiol. 2012, 86, 155-171

283- Evolution of Fe-S cluster biogenesis in the anaerobic parasite *Blastocystis*
A. D. Tsaousis, E. Gentekaki, S. Ollagnier-de-Choudens, S. Long, D. Gaston, A. Stechmann, M. Fontecave, B. Py, F. Barras, J. Lukeš, A. J. Roger
Proc. Natl. Acad. Sci. 2012, 109,10426-31

284- A Janus cobalt-based catalytic material for electro-splitting of water.
S. Cobo, J. Heidkamp, P.-A. Jacques, J. Fize, V. Fourmond, L. Guetaz, B. Jousselme, R. Salazar, V. Ivanova, H. Dau, S. Palacin, M. Fontecave, V. Artero
Nature Materials 2012, 11, 802-807

285- Over-expression of the Coq8 kinase in Saccharomyces cerevisiae coq null mutants allows for accumulation of diagnostic intermediates of the Coenzyme Q_6 biosynthetic pathway
L. X. Xie, M. Ozeir, J. Y. Tang, J. Y. Chen, S. Kieffer-Jaquinod, M. Fontecave, C. F. Clarke, F. Pierrel
J. Biol. Chem. 2012, 287, 23571-81

286- 4-demethylwyosine synthase from *Pyrococcus abyssi* is a Radical-SAM enzyme with an additional $[4Fe\text{-}4S]^{+2}$ cluster which interacts with the pyruvate co-substrate
P. Perche-Letuvée, V. Kathirvelu, G. Berggren, M. Clemancey, J.-M. Latour, V. Maurel, T. Douki, J. Armengaud, E. Mulliez, M. Fontecave, R. Garcia-Serres, S. Gambarelli, M. Atta.
J. Biol. Chem. 2012, 287, 41174-41185

287- Mesoporous α-Fe_2O_3 Thin Films Synthesized via the Sol-gel Process for Light-driven Water Oxidation
W. Hamd, S. Cobo, J. Fize, G. Baldinozzi, W. Schwartz, M. Reymermier, A. Pereira, M. Fontecave, V. Artero, C. Laberty-Robert, C. Sanchez
Phys. Chem. Chem. Phys., 2012, 14, 13224–13232.

288- Flavin conjugates for delivery of peptide nucleic acids
F. Marlin, P. Simon, S. Bonneau, P. Alberti, C. Cordier, C. Boix, L. Perrouault, A. Fossey, T. Saison-Behmoaras, M. Fontecave, C. Giovannageli
ChemBioChem 2012, 13, 2593-2598

289- FAD/Folate-Dependent tRNA Methyltransferase: Flavin as a new methyl-tranfer agent
D. Hamdane, M. Argentini, D. Cornu, B. Golinelli-Pimpaneau, M. Fontecave
J. Am. Chem. Soc. 2012, 134, 19739-19745

2013

290- Molecular Engineering of a Cobalt-based Electrocatalytic Nanomaterial for H_2 Evolution under Pure Aqueous Conditions

E. S. Andreiadis, P.-A. Jacques, P.D. Tran, A. Leyris, M. Chavarot-Kerlidou, B. Jousselme, M. Matheron, J. Pécaut, S. Palacin, M. Fontecave, V. Artero
Nature Chemistry 2013, 5, 48-53

291- In vivo [Fe-S] cluster acquisition by IscR and NsrR, two stress regulators in Escherichia coli
Daniel Vinella, Laurent Loiseau, Sandrine Ollagnier de Choudens, Marc Fontecave and Frédéric Barras
Molecular Microbiology 2013, 87, 493-508

292- Two Fe-S clusters catalyze sulfur insertion by radical-SAM methylthiotransferases
F. Forouhar, S. Arragain, M. Atta, S. Gambarelli, J.-M. Mouesca, M. Hussain, R. Xiao, S. Kieffer-Jaquinod, J. Seetharaman, T. B. Acton, G. T. Montelione, E. Mulliez, J. F. Hunt, M. Fontecave
Nature Chemical Biology 2013, 9, 333-338

293- Solar fuels generation and molecular systems: Is it homogeneous or heterogeneous catalysis?
V. Artero, M. Fontecave
Chem. Soc. Rev. 2013, 42, 2338-2356

294- Catalytic hydrogen production by Ni-Ru mimic of NiFe hydrogenases involves a proton-coupled electron transfer step
S. Canaguier, V. Fourmond, C. Perotto, J. Fize, J. Pécaut, M. Fontecave, M. J. Field, V. Artero
Chem. Commun. 2013, 49, 5004-5006

295- Biomimetic assembly and activation of [FeFe]-hydrogenases
G. Berggren, A. Adamska, C. Lambertz, T. Simmons, J. Esselborn, M. Atta, S. Gambarelli, JM Mouesca, E. Reijerse, W. Lubitz, T. Happe, V.Artero, M. Fontecave
Nature, 2013, 499, 66-70

296- Artificial Photosynthesis as a Frontier Technology for Energy Sustainability
T. Faunce S.Styring, M.R.Wasielewski, G.W. Brudvig, A. W. utherford, J. Messinger, A. F. Lee, C. L. Hill, H. deGroot, M. Fontecave, D. R. MacFarlane, B. Hankamer, D. G. Nocera, D. M. Tiede, H. Dau, W. Hillier, L. Wang
Energy Environ. Sci. 2013, 6, 1074-1076

297- Dye-Sensitized Nanostructured Crystalline Mesoporous Tin-doped Indium Oxide Films with Tunable Thickness for Photoelectrochemical Applications
W. Hamd, M. Chavarot-Kerlidou, J. Fize, G. Muller, A. Leyris, M. Matheron, E. Courtin, M. Fontecave, C. Sanchez, V. Artero, C. Laberty-Robert
J. Mater. Chem. A 2013, 1, 8217-8225

298- UbiI, a new gene in *Escherichia coli* Coenzyme Q biosynthesis, is involved in aerobic C5-hydroxylation
M. Hajj Chehade, L. Loiseau, M. Lombard, L. Pecqueur, A. Ismail, M. Smadja, B. Golinelli-Pimpaneau, C. Mellot-Draznieks, O. Hamelin, L. Aussel, S. Kieffer-Jaquinod, N. Labessan, F. Barras, M. Fontecave, F. Pierrel.

J. Biol. Chem. 2013, 288, 20085-20092

299- A computational study of the mechanism of hydrogen evolution by cobalt(diimine-dioxime) catalysts
A. Bhattacharjee, E. S. Andreiadis, M. Chavarot-Kerlidou, M. Fontecave, M. J. Field, V. Artero
Chemistry 2013, 19, 15166-15174

300- Spontaneous activation of [FeFe]-hydrogenases by an inorganic [2Fe] active site mimic
J. Esselborn, C. Lambertz, A. Adamska, T. Simmons, G. Chambers, J. Noth, J. Siebel, A. Hemschemeier, V. Artero, E. Reijerse, M. Fontecave, W. Lubitz, T. Happe
Nature Chem. Biol. 2013, 9, 607-609

301- Engineering the Optical Response of the Titanium-MIL-125 Metal−Organic Framework through Ligand Functionalization
C. H. Hendon, D. Tiana, M. Fontecave, C. Sanchez, L. D'arras, C. Sassoye, L. Rozes, C. Mellot-Draznieks, A. Walsh
J. Am. Chem. Soc. 2013, 135, 10942-10945

302- Activation du dioxyde de carbone: enzymes, catalyseurs bioinspirés et photosynthèse artificielle
N. Elgrishi, V. Artero, M. Fontecave
L'Actualité Chimique 2013, 371-372, 95-100

303- Activation of a unique flavin-dependent tRNA-methylating agent
D. Hamdane, E. Bruch, S. Un, M. Field, M. Fontecave
Biochemistry 2013, 52, 8949-8956

2014

304- UbiJ, a new gene required for aerobic growth and proliferation in macrophage, is involved in coenzyme Q biosynthesis in Escherichia coli and Salmonella enterica serovar typhimurium:
L. Aussel, L. Loiseau, M.H. Chehade, B. Pocachard, M. Fontecave, F. Pierrel, F. Barras
J. Bacteriol. 2014, 196, 70-79

305- Mimicking Hydrogenases: from Biomimetics to Artificial Enzymes
T. R. Simmons, G. Berggren, M. Bacchi, M. Fontecave, V. Artero
Coord. Chem. Rev. 2014, 270-271, 127-150.

306- An EPR/HYSCORE, Mössbauer, and resonance Raman study of the hydrogenase maturation enzyme HydF – a model for N coordination to [4Fe-4S] clusters
G. Berggren, R. Garcia, X. Brazzolotto, M. Clemancey, S. Gambarelli, M. Atta, J.-M. Latour, H. L. Hernández, S. Subramanian, M. K. Johnson, M. Fontecave
J. Biol. Inorg. Chem. 2014, 19, 75-84

307- Biosynthesis and physiology of coenzyme Q in bacteria
F. Barras, L. Aussel, F.Pierrel, L. Loiseau, M. Lombard, M. Fontecave
Biochim. Biophys. Acta, *Bioenergetics* 2014, 1837, 1004-1011

308- Terpyridine complexes of first row transition metals and electrochemical reduction of CO2 to CO.
N. Elgrishi, M.B. Chambers, V. Artero, M. Fontecave
Phys. Chem. Chem. Phys. 2014, 16, 13635-44

309- TtcA a new tRNA-thioltransferase with an Fe-S cluster.
D. Bouvier, N. Labessan, M. Clemancey, J-M Latour, J-L Ravanat, M. Fontecave, M. Atta
Nucleic Acid Res. 2014, 42, 7960-70

310- An integrative computational model for large-scale identification of metalloproteins in microbial genomes: a focus on iron-sulfur cluster proteins
Johan Estellon, Sandrine Ollagnier de Choudens, Myriam Smadja, Marc Fontecave, Yves Vandenbrouck
*Metallomics***,** 2014, 6, 1913–1930

311- Cobaloxime-Based Artificial Hydrogenases
M. Bacchi, G. Berggren, J. Niklas, E. Veinberg, M. W. Mara, M. L. Shelby, O. G. Poluektov, L. X. Chen, D. M. Tiede, C. Cavazza, M. J. Field, M. Fontecave, Vincent Artero
Inorg. Chem. 2014, 53, 8071-8082

312-Theoretical Modeling of Low-Energy Electronic Absorption Bands in Reduced Cobaloximes
A.Bhattacharjee, M. Chavarot-Kerlidou, J. L. Dempsey, H. B. Gray, E. Fujita, J. T. Muckerman, M. Fontecave, V. Artero, G. M. Arantes, M. J. Field
ChemPhysChem 2014, 15, 2951-2958

313- Electrode materials and artificial photosynthetic systems
P. D. Tran, M. Fontecave, V. Artero in "Bioinspired Catalysis: Metal-Sulfur Complexes" Wolfgang Weigand and Philippe Schollhammer, editors 2015, Wiley-VCH Verlag GmbH & Co. KGaA, Boschstr. 12, 69469 Weinheim, Germany, pp 385-410.

314- Molecular Investigation of Iron-sulfur cluster Assembly Scaffolds under Stress
B. Blanc, M. Clemancey, J.-M. Latour, M. Fontecave, S. Ollagnier de Choudens
Biochemistry 2014, 53, 7867-7869

2015

315- Photocatalytic CO_2 Reduction Utilizing Cp*Rh-based Catalysts in Solution and Heterogenized within Metal-Organic Frameworks
M. B. Chambers, X. Wang, N. Elgrishi, C. H. Hendon, A. Walsh, J. Bonnefoy, J. Canivet, E. A. Quadrelli, D. Farrusseng, C. Mellot-Draznieks, M. Fontecave
ChemSusChem 2015, 8, 603-608

316- Artificially Maturated [FeFe] Hydrogenase from C*hlamydomonas reinhardtii*: A HYSCORE and ENDOR Study of a Non-Natural H-cluster
A. Adamska-Venkatesh, T. R. Simmons, J. Siebel, V. Artero, M. Fontecave, E. Reijerse, W. Lubitz
Phys. Chem. Chem. Phys. 2015, 17, 5421-5430

317- Artificial hydrogenases: biohybrid and supramolecular systems for catalytic hydrogen production or uptake
G. Caserta, S. Roy, M. Atta, V. Artero, M. Fontecave
Curr. Op. Chem. Biol. 2015, 25, 36–47

318- A Noble Metal-Free Proton-Exchange Membrane Fuel Cell based on Bio-inspired Molecular Catalysts
P. D. Tran, A. Morozan, S. Archambault, J. Heidkamp, P. Chenevier, H. Dau, M. Fontecave, A. Martinent, B. Jousselme, V. Artero
Chem. Sci. 2015, 6, 2050-2053

319- Turning it off! Shutting down hydrogen evolution during homogeneous CO_2 reduction to CO by cobalt-terpyridine complexes
N. Elgrishi, M. B. Chambers, M. Fontecave
Chem. Sci. 2015, 6, 2522 – 2531

320- From molecular copper complexes to composite electrocatalytic materials for selective reduction of CO_2 to formic acid
Tran Ngoc Huan, E. S. Andreiadis, J. Heidkamp, P. Simon, E. Derat, S. Cobo, G. Royal, H. Dau, V. Artero, M. Fontecave
J. Mat. Chem. A 2015, 3, 3901-3907

321- Versatile functionalization of carbon electrodes with a polypyridine ligand: metallation and electrocatalytic H^+ and CO_2 reduction
N. Elgrishi, S. Griveau, M. B. Chambers, F. Bedioui, M. Fontecave
Chem. Commun. 2015, 51, 2995 – 2998

322- Bioinspired Tungsten Dithiolene Catalysts for Hydrogen Evolution: A Combined Electrochemical, Photochemical and Computational Study
M. Gomez-Mingot, J.-P. Porcher, T. K. Todorova, T. Fogeron, C. Mellot-Draznieks, Y. Xu-Li, M. Fontecave
J. Phys. Chem. B 2015, 119, 13524-13533

323- Sustainable Chemistry for Energizing the Planet
M. Fontecave
Angew. Chem. Int Ed. 2015 , 54, 6946-6947.

324- Les carburants solaires: Photosynthèse artificielle et procédés électrochimiques
N. Kaeffer, N. Queyriaux, M. Chavarot-Kerlidou, M. Fontecave, V. Artero
L'Actualité Chimique 2015, 397-398, 63-68

325- Electro-assisted Reduction of CO_2 to CO and Formaldehyde by the $(TOA)_6[\alpha\text{-}SiW_{11}O_{39}Co(\_)]$ Polyoxometalate

M. Girardi, S. Blanchard, S. Griveau, P. Simon, M. Fontecave, F. Bedioui, A. Proust
Eur. J. Chem. 2015, 22, 3642-3648

326- Flavin-protein Complexes: Aromatic Stacking driven by a Single Hydrogen Bond
D. Hamdane, C. Bou-Nader, D. Cornu, G. Hui-Bon-Hoa, M. Fontecave
Biochemistry 2015, 54, 4354-4364

327- Spectroscopic identification of the bridging amine in the active site of [FeFe] hydrogenase using isotopologues of the H-cluster.
A. Adamska-Venkatesh, S. Roy, J. F. Siebel, T. R. Simmons, M. Fontecave, V. Artero, E. Reijerse, W.L. Lubitz
J. Am. Chem. Soc. 2015, 137, 12744-12747

328- A bio-inspired Molybdenum Complex as a Catalyst for the Photo- and Electroreduction of Protons
J-P. Porcher, T. Fogeron, M. Gomez-Mingot, E. Derat, L-M. Chamoreau, Y. Li, M. Fontecave
Angew. Chem. Int. Ed. 2015, 54, 14090-14093

329- From Enzyme Maturation to Synthetic Chemistry:The case of Hydrogenases
V. Artero, G. Berggren, M. Atta, G. Caserta, S. Roy, L. Pecqueur, M. Fontecave
Accounts Chem Res. 2015, 48, 2380-2387

330- Coq6 is Responsible for the C4-Deamination Reaction in Coenzyme Q Biosynthesis in *Saccharomyces cerevisiae*
M. Ozeir, L. Pelosi, A. Ismail, C. Mellot-Draznieks, M. Fontecave, F. Pierrel.
J. Biol. Chem. 2015, 290, 24140-24151

331- An extended dsRBD is required for post-transcriptional modification in human tRNAs
C. Bou-Nader, L. Pecqueur, D. Bregeon, A. Kamah, V. Guérineau, B. Golinelli-Pimpaneau, B.G. Guimarães, M. Fontecave, D. Hamdane
Nucleic Acids Res. 2015, 43, 9446-9456

2016

332- Coenzyme Q biosynthesis: Evidence for a substrate access channel in the FAD-dependent monooxygenase Coq6
A. Ismail, V. Leroux, M. Smaja, L. Gonzalez, M. Lombard, F. Pierrel, C. Mellot-Draznieks, M. Fontecave
PLOS Computational Biology 2016, 12, e1004690

333- Synthesis, electrochemical and spectroscopic properties of ruthenium(II) complexes containing 2,6-di(1*H*-imidazo[4,5-*f*][1,10]phenantrolin-2-yl)aryl ligands
V. Goudy, J. Maynadié, X. Le Goff, D. Meyer, M. Fontecave.
New. J. Chem. 2016, 40, 1704-1714

334- Cu/Cu_2O electrodes and CO_2 reduction to formic acid: Effects of organic additives on surface morphology and activity
Tran Ngoc Huan, P. Simon, A. Benayad, L. Guetaz, V. Artero, M. Fontecave

Chemistry 2016, 22, 14029-14035

335- Synthesis and Reactivity of a Bio-inspired Dithiolene ligand and its Mo-oxo complex
J.-P. Porcher, T. Fogeron, M. Gomez-Mingot, L.-M. Chamoreau, Yun Li , M. Fontecave
Chemistry 2016, 22, 4447-4453

336- A simple and non-destructive method for assessing the incorporation of bipyridine dicarboxylates as linkers within metalorganic frameworks
C. H. Hendon, J. Bonnefoy, E. A. Quadrelli, J. Canivet, M.B. Chambers, G. Rousse, A. Walsh, M. Fontecave, C. Mellot-Draznieks.
Chemistry 2016, 22, 3713-3718

337- Chimie bioinspirée pour l'énergie: Transformer le soleil en carburants (Bioinspired chemistry for energy means: Conversion of sun into fuels)
M. Fontecave, M. Gomez-Mingot
L'Actualité Chimique 2016, 408-409, 46-50

338- Réduction photo-catalytique de CO_2 dans des matériaux à charpentes hybrides : contrôle de l'absorption de lumière et incorporation de catalyseurs moléculaires
G. Paille, M. Fontecave, C. Mellot-Draznieks
L'Actualité Chimique 2016, 408-409, 64-67

339- Artificial Hydrogenases based on Cobaloximes and Heme Oxygenase
M. Bacchi, E. Veinberg, M. J. Field, J. Niklas, O. G. Poluektov, M. Ikeda-Saito, M. Fontecave, V. Artero
ChemPlusChem 2016, 81, 1083-1089

340- CO_2 reduction to CO in water: carbon nanotube-gold nanohybrid as a selective and efficient electrocatalyst.
Tran Ngoc Huan, P. Prakash, P. Simon, G. Rousse, X. Xiangzhen, V. Artero, E. Gravel, E. Doris, M. Fontecave
ChemSusChem 2016, 9, 2317-2320

341- Chemical assembly of multiple cofactors: the heterologously expressed multidomain [FeFe]-hydrogenase from *Megasphaera elsdenii*.
G. Caserta, A. Adamska-Venkatesh, L. Pecqueur, M. Atta, V. Artero, R. Souvik, E. Reijerse, W. Lubitz, M. Fontecave
Biochim. Biophys. Acta, Bioenergetics 2016, 1857, 1734-1740

342- A chemical chaperone induces inhomogeneous conformational changes in flexible proteins
D. Hamdane, C. Velours, D. Cornu, M. Nicaise, M. Lombard, M.Fontecave
Phys. Chem. Chem. Phys. 2016, 18, 20410-20421

343- A Cobalt Complex with a bioinspired molybdopterin-like ligand: a Catalyst for Hydrogen Evolution

T. Fogeron, J.-P. Porcher, M. Gomez-Mingot, T. K. Todorova, L.-M. Chamoreau, C. Mellot-Draznieks, Yun Li, M. Fontecave
Dalton Trans 2016, 45, 14754-14763.

344- Porous-Organic Polymers as Platforms for Hetrogeneous Photochemical Catalysis
M. H. Alkordi, R. R. Haikal, X. Wang, Y. S. Hassan, M. R. Parida, M. Banavoth, O. F. Mohammed, P. J. Pellechia, M. Fontecave
ACS Applied Materials and Interfaces 2016, 8, 19994-20002

345- Flavin-dependent methylation of RNAs: complex chemistry for a simple modification
D. Hamdane, H. Grosjean, M. Fontecave
J. Mol. Biol. 2016, 428, 4867-4881

346- Reactivity of the excited states of the H-cluster of FeFe hydrogenase
M. Sensi, C. Baffert, C.Greco, G.Caserta, C. Gauquelin, L. Saujet, M. Fontecave, S. Roy, V. Artero, P. Soucaille, I. Meynial-Salles, H.Bottin, L. de Gioia, V. Fourmond, C. Léger, Luca Bertini
J. Am. Chem. Soc. 2016, 138, 13612-13618

2017

347- Molecular cobalt complexes with pendant amines for selective electrocatalytic reduction of carbon dioxide to formate
S. Roy, B. Sharma, J. Pecaut, P. Simon, M. Fontecave, P. Tran, E. Derat, V. Artero
J. Am. Chem. Soc. 2017, 139, 3685-3696

348- A synthetic redox biofilm made from metalloprotein - prion domain chimera nanowires
L. Altamura, C. Horvath, S. Rengaraj, K. Elouarzaki, C. Gondran, A. L. B. Maçon, C. Vendrely, V. Bouchiat, M. Fontecave, A. Le Goff, M. Holzinger, N. Duraffourg, V. Forge
Nature Chemistry 2017, 9 157-163

349. Porous dendritic copper: an electrocatalyst for highly selective CO_2 reduction to formate in water/ionic liquid electrolyte
Tran Ngoc Huan, P. Simon, G. Rousse, I. Génois, V. Artero, M. Fontecave
Chem. Sci. 2017, 8, 742-747

350- The [FeFe]-hydrogenase maturation protein HydF : Structural and Functional Characterization
G. Caserta, L. Pecqueur, A. Adamska-Venkatesh, C. Papini, S. Roy, V. Artero, M. Atta, E. Reijerse, W. Lubitz, M. Fontecave
Nature Chem. Biol. 2017, 13, 779-784

351- Molecular polypyridine-based metal complexes as catalysts for the reduction of CO_2
N. Elgrishi, M. B. Chambers, X. Wang, M. Fontecave

Chem Soc. Rev. 2017 46, 761-796

352- Effects of Cations on the Structure and Electrocatalytic Response of Polyoxometalate-Based Coordination Polymers
W. Salomon, G. Paille, M. Gomez-Mingot, P. Mialane, J. Marrot, C. Roch-Marchal, G. Nocton, C. Mellot-Draznieks, M. Fontecave, A. Dolbecq
Crystal Growth & Design 2017 17, 1600–1609

353- Electrochemical reduction of CO_2 catalyzed by Fe-N-C materials: a structure-selectivity study
Tran Ngoc Huan, N. Ranjbar, G. Rousse, M. Sougrati, A. Zitolo, V. Mougel, F. Jaouen, M. Fontecave
ACS Catalysis 2017, 7, 1520-1525

354- Ruthenium-Cobalt Dinuclear complexes as Photocatalysts for CO_2 reduction
X.Wang, V. Goudy, G. Genesio, J. Maynadié, D. Meyer, M. Fontecave
Chem. Commun 2017, 53, 5040-5043.

355- Non redox thiolation in transfer RNA occuring via sulfur activation by a [4Fe-4S] cluster
S. Arragain, O. Bimai, P. Legrand, S. Caillat, J.-L. Ravanat, N. Touati, L. Binet, M. Atta, M. Fontecave, B. Golinelli-Pimpaneau
Proc. Natl. Acad. Sci. 2017, 114, 7355-7360

356- Rhenium complexes based on 2-pyridyl-1,2,3-triazole ligands:
a new class of CO_2 reduction catalysts
H.Y.V. Ching, X. Wang, M. He, N. P. Holland, R. Guillot, C. Slim, S. Griveau, H. C. Bertrand, C. Policar, F. Bedioui, M. Fontecave
Inorg. Chem. 2017, 56, 2966-2976

357- Maximizing the Photocatalytic Activity of Metal-Organic Frameworks with Aminated-Functionalized Linkers: Sub-stoichiometric effects in MIL-125-NH2
M. Chambers, X. Wang, L. Ellezam, Ov. Ersen, M. Fontecave, C. Sanchez, L. Rozes, C. Mellot-Draznieks
J. Am. Chem. Soc. 2017, 139, 8222-8228

358- Synthesis, Characterization and DFT Analysis of Bisterpyridyl-Based Molecular Cobalt Complexes
S. Aroua, T. K. Todorova, L.-M. Chamoreau, V. Mougel, H.-U. Reissig,[b] M. Fontecave
Inorg. Chem. 2017, 56, 5930-5940

359- The unusual ring scission of a quinoxaline-pyran-fused dithiolene system related to molybdopterin
T. Fogeron, P. Retailleau, L.-M. Chamoreau, M. Fontecave, Y. Li
Dalton Trans. 2017, 46, 4161-4164

360- A Dendritic Nanostructured Copper Oxide Electrocatalyst for the Oxygen-Evolving Reaction

Tran Ngoc Huan, G. Rousse, S. Zanna, I. T. Lucas, X. Xu, N. Menguy, V. Mougel, M. Fontecave
Angew. Chem. 2017, 56, 4792-4796

361- New Cobalt-Bisterpyridyl Catalysts for Hydrogen Evolution Reaction
S. Aroua, T. K. Todorova, V. Mougel, P. Hommes, H.-U. Reissig, M. Fontecave
ChemCatChem 2017, 9, 2099-2105

362- On the Role of Additional [4Fe-4S] Clusters with a Free Coordination Site in Radical-SAM Enzymes
E. Mulliez, V. Duarte, S. Arragain, M. Fontecave, M. Atta
Front. Chem. 2017, 5, 17. doi: 10.3389/fchem.2017.00017

363- The UbiK protein is necessary for coenzyme Q biosynthesis in *Escherichia coli* and *Salmonella enterica* and forms a complex with UbiJ
L. Loiseau, C. Fyfe, L. Aussel, M. Hajj Chehade, S. B. Hernández, B. Faivre, D. Hamdane, C. Mellot-Draznieks, B. Rascalou, L. Pelosi, C. Velours, D. Cornu, M. Lombard, J. Casadesús, F. Pierrel, M. Fontecave, F. Barras
J. Biol. Chem. 2017, 292, 11937-11950

364- Pt Immobilization within a Tailored Porous-Organic Polymer–Graphene Composite: Opportunities in the Hydrogen Evolving Reaction
A. Soliman, T. Ngoc Huan, M. Hassan, A. Abugable, W. Elmehalmey, Worood; S. Karakalos, M. Tsotsalas, M. Heinle, M. Fontecave, M. Alkordi
ACS Catalysis 2017, 7, 7847-7854

365- Enzyme activation with a synthetic catalytic coenzyme intermediate: nucleotide methylation by new flavoenzymes
C. Bou-Nader, D. Cornu, V. Guerineau, T. Fogeron, M. Fontecave, D. Hamdane
Angew. Chem. Int. Ed. 2017, 56, 12523-12527

366- Power of protein/tRNA functional assembly against aberrant aggregation
C. Bou-Nader, L. Pecqueur, D. Cornu, M. Dezi, C. Velours, M. Fontecave, D. Hamdane
Phys. Chem. Chem. Phys. 2017, 19, 28014-28027

367- Site-isolated manganese carbonyl on bipyridine-functionalities of periodic mesoporous organosilicas: efficient CO_2 photoreduction and detection of key reaction intermediates
X. Wang, I. Thiel, A. Fedorov, C. Copéret, V. Mougel, M. Fontecave
Chem. Sci. 2017, 8, 8204-8213

2018

368- Photosynthèse artificielle: transformer le soleil en carburants
T. Fontecave, M. Fontecave
Bulletin de l'Union des Physiciens 2018, 1000, 249-260

369- *Arabidopsis thaliana* DGAT3 is a [2Fe-2S] protein involved in TAG biosynthesis
L. Aymé, S. Arragain, M. Canonge, S. Baud, N. Touati, O. Bimai, F. Jagic, C. Louis-Mondésir, P. Briozzo, M. Fontecave, T Chardot
Scientific Reports 2018, 8, 17254

370- A Fully Noble Metal-Free Photosystem Based on Cobalt-Polyoxometalates Immobilized in a Porphyrinic Metal-Organic-Framework for Water Oxidation
G. Paille, M. Gomez-Mingot, C. Roch-Marchal, B. Lassalle-Kaiser, P. Mialane, M. Fontecave, C. Mellot-Draznieks, A. Dolbecq
J. Am. Chem. Soc. 2018, 140, 3613-3618

371- The ErpA/NfuA complex builds an oxidative resistant Fe-S cluster delivery pathway
B. Py, C. Gerez, A. Huguenot, C. Vidaud, M. Fontecave, S. Ollagnier de Choudens, F. Barras
J. Biol. Chem. 2018, 293, 7689-7702

372- Engineering a microbial [FeFe]-hydrogenase: do accessory clusters influence O_2 resistance and catalytic bias ?
G. Caserta, C. Papini, A. Adamska-Venkatesh, L. Pecqueur, C. Sommer, E. Reijerse, W. Lubitz, C. Gauquelin, I. Meynial-Salles, D. Pramanik, V. Artero, M. Atta, M. del Barrio, B. Faivre, V. Fourmond, C. Léger, M. Fontecave
J. Am. Chem. Soc. 2018, 140, 5516-5526

373- A Bioinspired Nickel(bis-dithiolene) Complex as a Novel Homogeneous Catalyst for Carbon Dioxide Electroreduction
T. Fogeron, T. K. Todorova, J.-P. Porcher, M. Gomez-Mingot, L.-M. Chamoreau, C. Mellot-Draznieks, Y. Li, M. Fontecave
ACS Catalysis 2018, 8, 2030-2038

374- Spectroscopic Investigations of a semi-synthetic [FeFe] hydrogenase with propane di-selenol as bridging ligand in the bi-nuclear subsite: comparison to the wild type and propane di-thiol variants
C. Sommer, S. Rumpel, S. Roy, V. Artero, M. Fontecave, E. Reijerse, W. Lubitz
J. Biol. Inorg. Chem. 2018, 23, 481-491

375- Electrostatic potential in tRNA-binding evolution of dihydrouridine synthases
C. Bou-Nader, D. Bregeon, L. Pecqueur, V. Guerineau, M. Fontecave, D. Hamdane
Biochemistry 2018, 57, 5407-5414

376- Immobilization of a full photosystem in the large pore MIL-101 Metal-organic Framework for CO2 reduction
X. Wang, F. M. Wisser, J. Canivet, M. Fontecave, C. Mellot-Draznieks
ChemSusChem 2018, 11, 3315-3322

377- Pyranopterin Related Dithiolene Molybdenum Complexes as Homogeneous Catalysts for CO_2 Photoreduction
T. Fogeron, P. Retailleau, L.-M. Chamoreau, Y. Li, M. Fontecave
Angew. Chem. Int. Ed. Engl. 2018, 57, 17033-17037

2019

378- Nickel complexes based on molybdopterin-like dithiolenes: catalysts for CO_2 electroreduction
T. Fogeron, P. Retailleau, M. Gomez-Mingot, Y. Li, M. Fontecave
Organometallics 2019, 38, 1344-1350

379- A soluble metabolon synthesizes the isoprenoid lipid Ubiquinone
M. Hajj Chehade, L. Pelosi, C. D. Fyfe, L. Loiseau, B. Rascalou, S. Brugière, K. Kazemzadeh, Chau-Duy-Tam Vo, L. Aussel, Y. Couté, M. Fontecave, F. Barras, M. Lombard, F. Pierrel
Cell Chem. Biol. 2019, 12, 511-517

380- Zn-Cu alloy nanofoams as efficient catalysts for CO_2 reduction to syngas mixtures with potential-independent H_2:CO ratio
S. Lamaison, D. Wakerley, D. Montero, G. Rousse, D. Taverna, D. Giaume, Tran HN, M. Fontecave, V. Mougel
ChemSusChem 2019, 12, 511-517

381- Controlling Hydrogen Evolution during CO_2 Photoreduction to Formic Acid using $[Rh(bpy)(Cp^*)Cl]^+$ Catalysts: A Structure-Activity Study
T. K. Todorova, Tran Ngoc Huan, X. Wang, H. Agarwala, M. Fontecave
Inorg. Chem. 2019, 58, 6893-6903

382- Shigella IpaA binding to talin stimulates filopodial capture and cell adhesion
C. Valencia-Gallardo, C. Bou-Nader, D.I. Aguilar-Salvador, N. Carayol, N. Quenech'Du, L. Pecqueur, H. Park, M. Fontecave, T. Izard, G. Tran Van Nhieu
Cell Reports 2019, 26, 921-932

383- Molecular basis for transfer RNA recognition by the double-stranded RNA-binding domain of human dihydrouridine synthase 2
C. Bou-Nader, P. Barraud, L. Pecqueur, J. Pérez, C. Velours, M. Fontecave, C. Tisné and D. Hamdane
Nucl. Acid Res. 2019, 47, 3117-3126

384- Low-cost high efficiency system for solar-driven conversion of CO_2 to hydrocarbons
Huan Ngoc Tran, D. Alves Dalla Corte, S. Lamaison, L. Lutz, N. Menguy, M. Foldyna, S.-H. Turren-Cruz, A. Hagfeldt, F. Bella, M. Fontecave, V. Mougel.
Proc. Natl. Acad. Sci. 2019, 116, 9735-9740

385- Electroreduction of CO_2 on Single-Site Copper-Nitrogen-Doped Carbon Material: Selective Formation of Ethanol and Reversible Restructuration of the Metal Sites
D. Karapinar, Ngoc Tran Huan, N. Ranjbar Sahraie, D. W. Wakerley, N. Touati, S. Zanna, D. Taverna, L.H. Galvão Tizei, A. Zitolo, F. Jaouen, V. Mougel, M. Fontecave
Angew. Chem. 2019, 58, 15098-15103

386- Elucidation of the Fe-S clusters assembly sequence reveals key functions of frataxin and ferredoxin 2 in persulfide processing

S. Gervason, D. Larkem, A. Ben Mansour, T. Botzanowski, C.S. Müller, L. Pecqueur, A. Delaunay-Moisan, G. Le Pavec, O. Brun, J. Agramunt, A. Grandas, M. Fontecave, V. Schüneman, S. Cianférani, C. Sizun, M. Toledano, B. D'Autréaux.
Nature Communications 2019, 10:3566. doi: 10.1038/s41467-019-11470-9.

387- Bio-inspired hydrophobicity promotes CO_2 reduction on a Cu surface
D. Wakerley, S. Lamaison, F. Ozanam, N. Menguy, D. Mercier, P. Marcus, M. Fontecave, V. Mougel
Nature Materials 2019, 18, 1222-1227

388- Conformational stability adaptation of a double-stranded RNA binding domain to transfer RNA ligand.
C. Bou-Nader, L. Pecqueur, P. Barraud, M. Fontecave, C. Tisne, S. Sacquin-Mora, D. Hamdane
Biochemistry 2019, 58, 2463-2473

389- A bioinspired artificial [FeFe]-hydrogenase with a synthetic H-cluster
C. Papini, C. Sommer, L. Pecqueur, D. Pramanik, S. Roy, E. J. Reijerse, F. Wittkamp, U-P. Apfel, V. Artero, W. Lubitz, M. Fontecave
ACS Catal. 2019, 9, 4495-4501

390- Ubiquinone biosynthesis over the entire O_2 range: characterization of a conserved O_2-independent pathway
L. Pelosi, C.-D.-T. Vo, S. Abby, L. Loiseau, B. Rascalou, M. Hajj Chehade, B. Faivre, M. Gousse, C. Chenal, N. Touati, Laurent Binet, David Cornu, C. D. Fyfe, M. Fontecave, F. Barras, M. Lombard, F. Pierrel
mBio 2019, 10, pii: e01319-19. doi: 10.1128/mBio.01319-19

391- An unprecedented $\{Ni_{14}SiW_9\}$ hybrid polyoxometalate with high photocatalytic hydrogen evolution activity
G. Paille, A. Boulmier, A. Bensaid, Minh-Huong Ha-Thi, Thu-Trang Tran, T. Pino, J. Marrot, E. Rivière, C. H. Hendon, O. Oms, M. Gomez-Mingot, M. Fontecave, C. Mellot-Draznieks, A. Dolbecq, P. Mialane
Chem. Commun. 2019, 55, 4166-4169

392- FeNC Catalysts for CO_2 Electroreduction to CO: Effect of Nanostructured Carbon Supports
D. Karapinar, Ngoc Tran Huan, D. Giaume, N. Ranjbar, F. Jaouen, V. Mougel, M. Fontecave.
Sust. En. & Fuels 2019, 33, 1833-1840

393- Copper substituted $NiTiO_3$ Ilmenite type Materials for Oxygen Evolution Reaction
A.Guiet, Tran Ngoc Huan, C. Payen, F. Porcher, V. Mougel, *M.* Fontecave, G. Corbel
ACS Appl. Mat. Int. 2019, 11, 31038-31048

394-Thin Films of Fully Noble Metal-Free POM@MOF for Electrocatalytic and Photocatalytic Water Oxidation
G. Paille, M. Gomez-Mingot, C. Roch-Marchal, M. Haouas, T. Pino, M.-H. Ha-Thi, G. Landrot, P. Mialane, M. Fontecave, A. Dolbecq, C. Mellot-Draznieks

ACS Appl. Mat. Int. 2019, 11, 47837-47845

2020

395- 4-hydroxyphenylacetate 3-hydroxylase from *Escherichia coli* : an aromatic hydroxylase with broad substrate specificity
Y. Deng, B. Faivre, O. Back, M. Lombard, L. Pecqueur, M. Fontecave
ChemBioChem 2020, 21, 163-170

396- High Current Density CO_2-to-CO Electroreduction on Ag-Alloyed Zn dendrites at Elevated Pressure
S. Lamaison, D.Wakerley, J. Blanchard, D. Montero, G. Rousse, D. Mercier, P.Marcus, D.Taverna[D. Giaume, V. Mougel, M. Fontecave
Joule 2020, 4, 395-406

397- Carbon Nanotube supported Copper Polyphthalocyanine for Efficient and Selective Electrocatalytic CO_2 Reduction to CO
D. Karapinar, A. Zitolo, Ngoc Tran Huan, S. Zanna, D. Taverna, L.H.G. Tizei, D. Giaume, P. Marcus, V. Mougel, M. Fontecave
ChemSusChem 2020, 13, 173-179

398- A heterogeneous recyclable Rhodium-based catalyst for the reduction of pyridine dinucleotides and flavins
Y. Deng, M. Odziomek, C. Sanchez, O. Back, V. Mougel, M. Fontecave
ChemCatChem 2020, 12, 1236-1243

399- Mechanistic Understanding of CO_2 Reduction Reaction (CO2RR) Towards Multicarbon Products by Heterogeneous Copper-Based Catalysts
T. K. Todorova, M. Schreiber, M. Fontecave
ACS Catalysis 2020, 10, 1754-1768

400- A Single Molecular Stoichiometric P-Source for Phase-Selective Synthesis of Crystalline and Amorphous Iron Phosphide Nanocatalysts
F. D'Accriscio, E. Schrader, C. Sassoye, M. Selmane, R.F. André, S. Lamaison, D. Wakerley, M. Fontecave, V. Mougel, G. Le Corre, H. Grützmacher, C. Sanchez, S. Carenco
ChemNanoMat 2020 (sous presse)

401- A Bioinspired Molybdenum-Copper Molecular Catalyst for CO_2 Electroreduction
A. Mouchfiq, T. K. Todorova, S. Dey, M. Fontecave, V. Mougel
Chem. Sci. 2020, 11, 5503–5510

402- Co-immobilization of a Rh catalyst and a Keggin Polyoxometalate in the UiO-67 Zr-based Metal-Organic-Framework: in Depth Structural Characterization and Photocatalytic Properties for CO_2 Reduction
Y. Benseghir, A. Lemarchand, M. Duguet, P. Mialane, M. Gomez-Mingot, C. Roch-Marchal, T. Pino, M.-H. Ha-Thi, M. Haouas, M. Fontecave, A. Dolbecq, C. Sassoye, C. Mellot-Draznieks
J. Am. Chem. Soc. 2020 , 20, 9428-9438

403- The O_2-independent pathway for the biosynthesis of ubiquinone is essential for denitrification in *Pseudomonas aeruginosa*
C.-D.-T. Vo, J. Michaud, S. Elsen, B. Faivre, E. Bouveret, F. Barras, M. Fontecave, F. Pierrel, Murielle Lombard, L. Pelosi
J. Biol. Chem. 2020 (sous presse)

404- Iron sulfur biology invades tRNA modification: the case of U34 sulfuration
J. Zhou, M. Lénon, N. Touati, J.-L.Ravanat, C. Velours, M. Fontecave, F. Barras, B. Golinelli-Pimpaneau
*Nucl. Ac. Res.*2020 (soumis)

405- Electroreduction of CO_2 to Formate with low overpotential using Cobalt Pyridine Thiolate Complexes
S. Dey, T. K. Todorova, M. Fontecave, V. Mougel
*Angew. Chem.*2020 (sous presse)

406- Solar-Driven Electrochemical CO_2 Reduction with Heterogeneous Catalysts
C. E. Creissen, M. Fontecave
En. Env. Sci. 2020 (soumis)

407- Imidazolium and pyrrolidinium based Ionic Liquids as co-catalysts for CO2 electroreduction in model molecular electrocatalysis
E. Vichou, Y. Xu-Li, M. Gomez-Mingot, M. Fontecave, C. M. Sanchez-Sanchez
ACS Catal. 2020 (soumis)

408- Structural, biochemical and functional analyses of tRNA-Monooxygenase enzyme MiaE from Pseudomonas putida provide insights into tRNA/MiaE interaction.
P. Carpentier, C. Leprêtre, C. Basset, T. Douki, S. Torelli, V. Duarte, D. Hamdane, M. Fontecave, M. Atta.
Nucl. Ac. Res. 2020 (soumis)