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RESEARCH INTERESTS

Organic Chemistry
Catalytic hydrogenation of CO_2
Synthesis of modified oligonucleotides, PNA and peptides
Peptide synthesis

Liste de publications

2021

17- An enzymatic activation of formaldehyde for nucleotide methylation.

Bou-Nader C., Stull F., Pecqueur L., Simon P., Guérineau V., Royant A., Fontecave M., Lombard M., Palfey P., Hamdane D.
Nat. Comm., 2021, 12 (1), 4542-4549

2017

16- Molecular Cobalt Complexes with Pendant Amines for Selective Electrocatalytic Reduction of Carbon Dioxide to Formic Acid.
Roy S., Sharma B., Pécaut J., Simon P., Fontecave M., Tran Phong D., Derat E., Artero V.
J. Am. Chem. Soc., 2017, 139 (10), 3685–3696.

15- Porous dendritic copper: an electrocatalyst for highly selective CO2 reduction to formate in water/ionic liquid electrolyte.
Huan T. N., Simon P., Rousse G., Génois I., Artero V., Fontecave M.
Chem. Sci., 2017, 8, 742-747.

2016

14- CO2 reduction to CO in water: carbon nanotube-gold nanohybrid as a selective and efficient electrocatalyst.
Huan T.N., Prakash P., Simon P., Rousse G., Xu X., Artero V., Gravel E., Doris E., Fontecave M.
ChemSusChem. 2016, 9 (17), 2317-2322.

13- Cu/Cu2O electrodes and CO2 reduction to formic acid: Effects of organic additives on surface morphology and activity.
Huan T.N., Simon P., Benayad A., Guetaz L., Artero V., Fontecave M.
Chemistry. 2016, 22 (39), 14029-14035.

2015

12- From molecular copper complexes to composite electrocatalytic materials for selective reduction of CO2 to formic acid.
Huan T. N., Andreiadis E. S., Heidkamp, J., Simon P., Derat E., Cobo S., Royal G., Dau H., Artero V., Fontecave M.
J. Mat. Chem. A. 2015, 3, 3901-3907.

11- Electro-assisted Reduction of CO2 to CO and Formaldehyde by the (TOA)6[α-SiW11O39Co(_)] Polyoxometalate
Girardi M., Blanchard S., Griveau S., Simon P., Fontecave M., Bedioui F., Proust A.
Eur. J. Chem. 2015, 22, 3642-3648.

2012

10- Flavin conjugates for delivery of peptide nucleic acids
Marlin F., Simon P., Bonneau S., Alberti P., Cordier C., Boix C., Perrouault L., Fossey A., Saison-Behmoaras T., Fontecave M., Giovannageli C.
***ChemBioChem*.** 2012, 13 (17), 2593-2598.

2011

9- A steric blocker of translation elongation inhibits IGF-1R expression and cell transformation. Lecosnier S., Cordier C., Simon P., François J.C., Saison-Behmoaras T.
FASEB J. 2011, 25 (7),2201-2210.

2010

8- Delivery of Oligonucleotides and Analogues – The Oligonucleotide Conjugate based Approach.
Marlin F., Simon P., Saison-Behmoaras T., Giovannangeli C.
ChemBioChem 2010, 11 (11),1493-1500.

2008

7- Targeting DNA with triplex-forming oligonucleotides to modify gene sequence
Simon P., Cannata F., Concordet, J-P., Giovannangeli C.
Biochimie 2008, 90 (8), 1109-1116.

6- Sequence-specific DNA cleavage mediated by bipyridine polyamide conjugates.
Simon P., Cannata F., Halby L., Perrouault L., Boutorine A., Ryabinin V., Syniakov A., Giovannangeli C.
Nucleic Acids Res. 2008, 36 (11), 3531-3538.

2007

5- Sequence-Specific Recognition of Double-Stranded DNA by Synthetic Minor Groove Binder Conjugates. Construction of Artificial Site-Specific Deoxyribonucleases
Boutorine A., Halby L., Simon P., Perrouault L., Giovannangeli C., Gursky G., Surovaya A., Grokhovsky S., Ryabinin V., Sinyakov A.
Nucleos. Nucleot. Nucl. 2007, 26 (10), 1559-1563.

2006

4- Formation of Isodialuric Lesion within DNA Oligomers via One Electron Oxidation of 5-hydroxyuracil: Characterization, Stability and Excision Repair
Simon P., Gasparutto D., Gambarelli S., Saint-Pierre C., Favier A., Cadet J.

Nucleic Acids Res. 2006, 34 (13), 3660-3669.

3- Sequence-Specific Nucleic Acid Damage by Peptide Nucleic Acid Conjugates That Can Be Enzyme-Activated
Simon P., Décout J-L., Fontecave M.
Angew. Chem. Int. Ed. 2006, 45 (41), 6859-6861.

2005

2- DNA Detection through Signal Amplification using NADH:Flavin Oxidoreductase and Oligonucleotide-Flavin Conjugates as Cofactors
Simon P., Dueymes C., Fontecave M.,Décout J-L.
Angew. Chem. Int. Ed. 2005, 44 (18), 2764-2767.

2004

1- New Flavin and Deazaflavin Oligonucleotide Conjugates for the Amperometric Detection of DNA Hybridization
Cosnier S., Gondran C., Dueymes C., Simon P., Fontecave M., Décout J-L.
Chem. Comm. 2004, 1624-1625.