Iron complexes as electrocatalysts for the water oxidation reaction

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PROEFSCHRIFT

Ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus Prof. mr. C. J. J. M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 28 Februari 2018
klokke 13:45 uur

door

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geboren te Berlijn, Duitsland, 1988

Samenstelling Promotiecommissie

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LIST OF ABBREVIATIONS & SYMBOLS

Ligands

bpmcn	*N*,*N*'-dimethyl-*N*,*N*'-bis(2-pyridylmethyl)-cyclohexane-1,2-diamine
bpy	bipyridine
dba	dibenzylideneacetone
dpa	*N*,*N*-di(1,10-phenanthrolin-2-yl)-*N*-isopentylamine
Hbbpya	*N*,*N*-bis(2,2'-bipyrid-6-yl)amine
L	generic ligand
ppq	2-(pyrid-2'-yl)-8-(1",10"-phenanthrolin-2"-yl)-quinoline
TAML	tetra-amido macrocyclic ligand
tpy	terpyridine

Chemicals

BINAP	2,2'-bis(diphenylphosphino)-1,1'-binaphthyl
CAN	cerium(IV) ammonium nitrate
KO*t*Bu	potassium *tert*-butoxide
*m*CPBA	*meta*-chloroperoxybenzoic acid
Et_2O	diethyl ether
OTf	triflate anion

Spectroscopy and spectrometry

d	doublet
dd	doublet × doublet
ddd	doublet × doublet × doublet
EPR	electron paramagnetic resonance
ESI	electrospray ionisation
IR	infrared
J	coupling constant
m	multiplet
m/z	mass-to-charge ratio
MS	mass spectrometry
NMR	nuclear magnetic resonance
ppm	parts per million
s	sharp
SERS	surface enhanced raman spectroscopy
t	triplet
UV	ultraviolet
vis	visible
δ	chemical shift

Electrochemistry

µA	microampere
BDD	boron-doped diamond
CV	cyclic voltammetry
EQCM	electrochemical quarz crystal microbalance
FTO	fluorine-doped tin oxide
GC	glassy carbon
HOPG	highly ordered pyrolytic graphite
ITO	indium tin oxide
OLEMS	on-line electrochemical mass spectrometry
PG	pyrolytic graphite
RHE	reversible hydrogen elecrode
RRDE	rotating ring-disc electrode

Other

µ	prefix to indicate bridging ligands
a.u.	arbitrary units
cf.	compare
e.g.	for example
et al.	et alii
Fig.	figure
FOTW	foot of the wave
g	gram
h	hour
Hz	hertz
K	kelvin
M	molar
Me	methyl
mg	milligram
min	minutes
mL	milliliter
MLCT	metal-to-ligand charge-transfer
mM	milimolar
mmol	millimol
OEC	oxygen evolving complex
Ph	phenyl
PSII	photosystem II
s	second
TOF	turnover frequency
TON	turnover number