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## Redox interconversion between metal thiolate and disulfide compounds

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# **Redox Interconversion between Metal Thiolate and Disulfide Compounds**

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 vrijdag 7 december 2018  
klokke 13:45 uur

door

**Feng Jiang**  
geboren te Jiangsu in 1988

## **Samenstelling Promotiecommissie**

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Haste makes waste

欲速则不达

<The Analects of Confucius>



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# List of Abbreviations

a.u.	arbitrary units
Bu	butyl
CcO	cytochrome <i>c</i> oxidase
CDO	cysteine dioxygenase
Cys	cysteine
DCM	dichloromethane
DFT	density functional theory
ESI	electrospray ionization
Eq	equation
ET	electron transfer
Glu	glutamic acid
His	histidine
IR	infrared
<i>J</i>	coupling constant
LMCT	ligand-to-metal charge transfer
m	medium (IR); multiplet (NMR)
min	minutes
Me	methyl
Met	methionine
MLCT	metal-to-ligand charge transfer
NMR	nuclear magnetic resonance
NHases	Nitrile hydratases
MS	mass spectrometry
<i>o</i>	ortho
OTf	trifluoromethanesulfonate
<i>p</i>	para
Ph	phenyl
Py	2-pyridyl
ppm	parts per million
RT	room temperature
s	singlet (NMR); strong (IR)
t	triplet
THF	tetrahydrofuran
TPA	tris(2-pyridylmethyl)amine
Ts	4-toluenesulfonyl
Tyr	tyrosine
UV	ultra-violet
vis	visible
vs	very strong (IR)
w	weak (IR)

