

A Trinuclear Ruthenium Complex as Highly Efficient Molecular Catalyst for Water Oxidation

Linlin Zhang,^a Yan Gao,^{*,a} Zhao Liu,^a Xin Ding,^a Ze Yu[†] and Licheng Sun^{*,a,b}

^aState Key Laboratory of Fine Chemicals, DUT-KTH Joint Education and Research Center on Molecular Devices, Dalian University of Technology (DUT), Dalian 116024, China.

^bDepartment of Chemistry, School of Chemical Science and Engineering, KTH Royal Institute of Technology, Stockholm 10044, Sweden.

Corresponding address:

E-mail: dr.gaoyan@dlut.edu.cn; lichengs@kth.se.

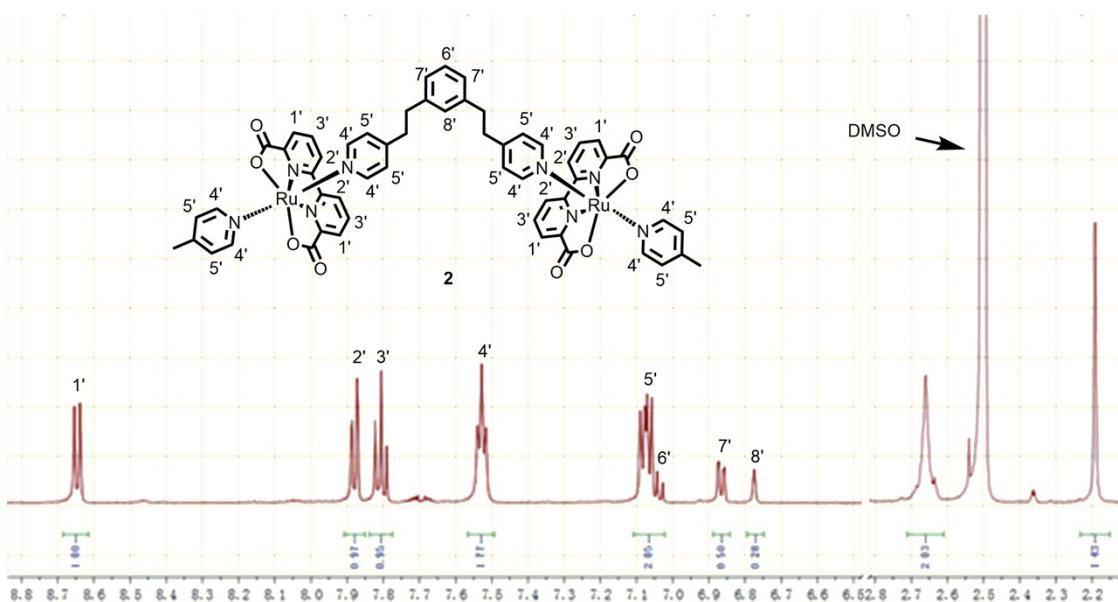


Figure S1. ^1H NMR spectrum (400 MHz, d₆-DMSO) of catalyst **2**.

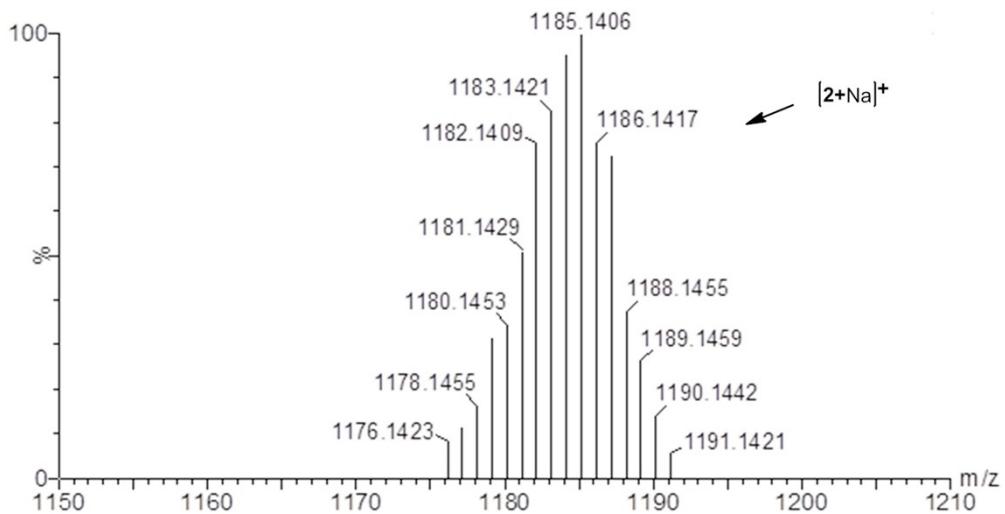


Figure S2. HR-MS spectrum of catalyst **2**.

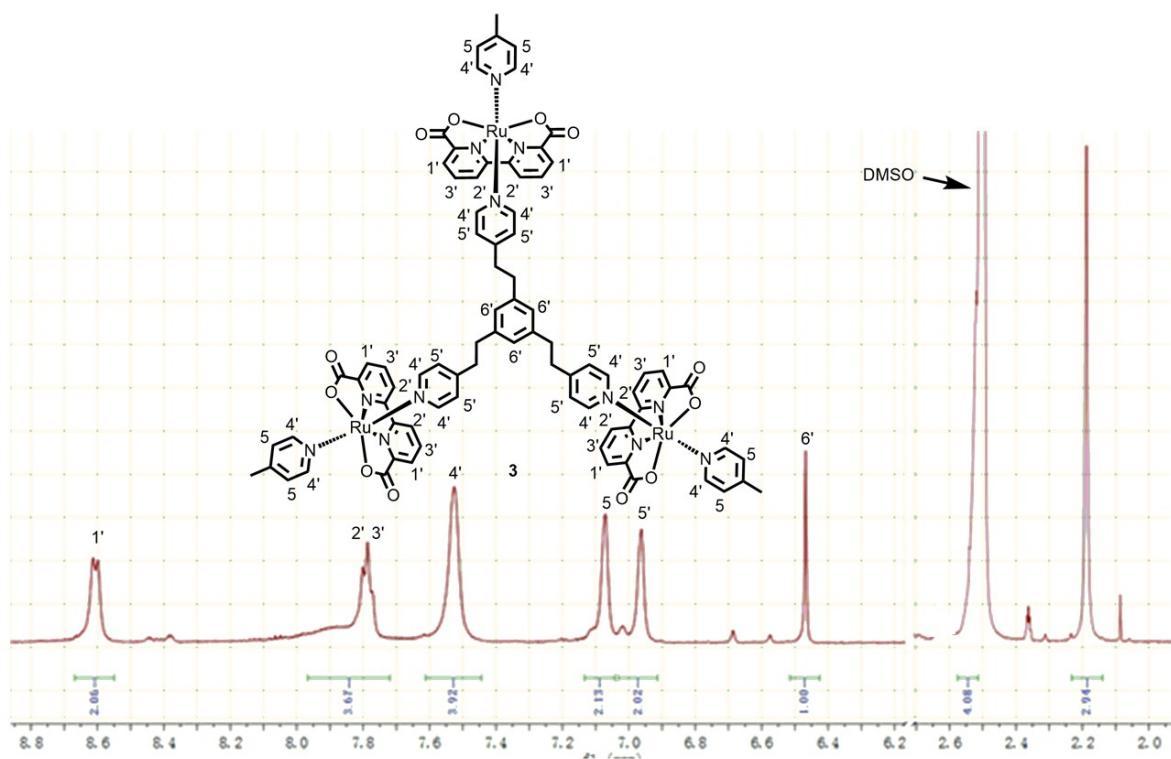


Figure S3. ^1H NMR spectrum (400 MHz, d₆-DMSO) of catalyst **3**.

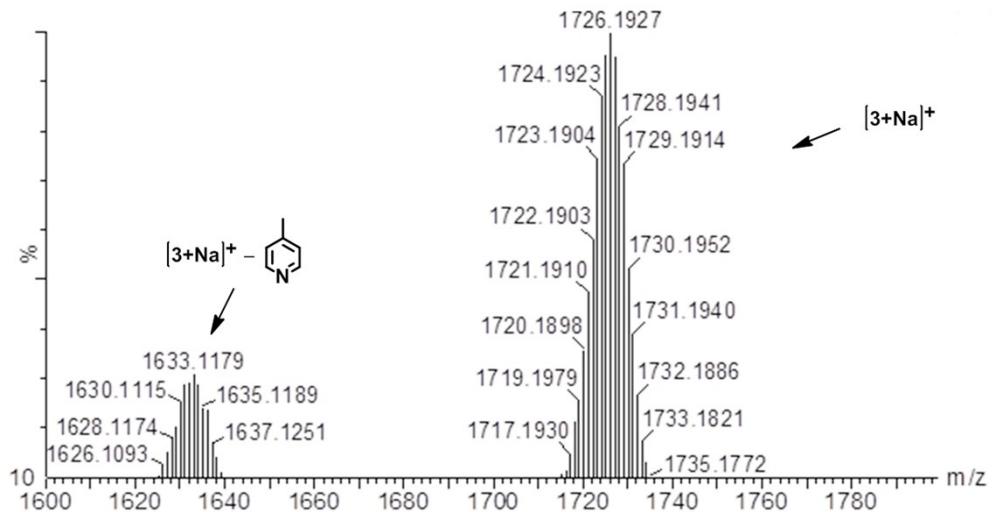


Figure S4. HR-MS spectrum of catalyst 3.

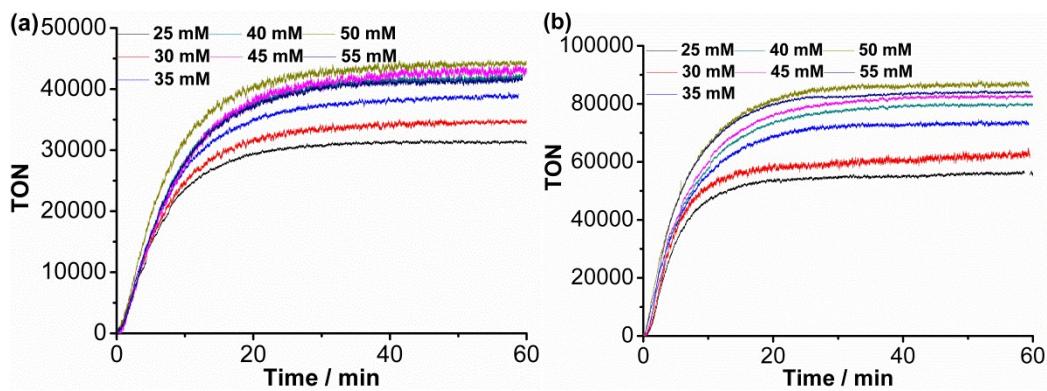


Figure S5. TONs of catalysts 2 (a) and 3 (b) under different concentrations of Ce^{IV} based on the amounts of molecular catalysts.

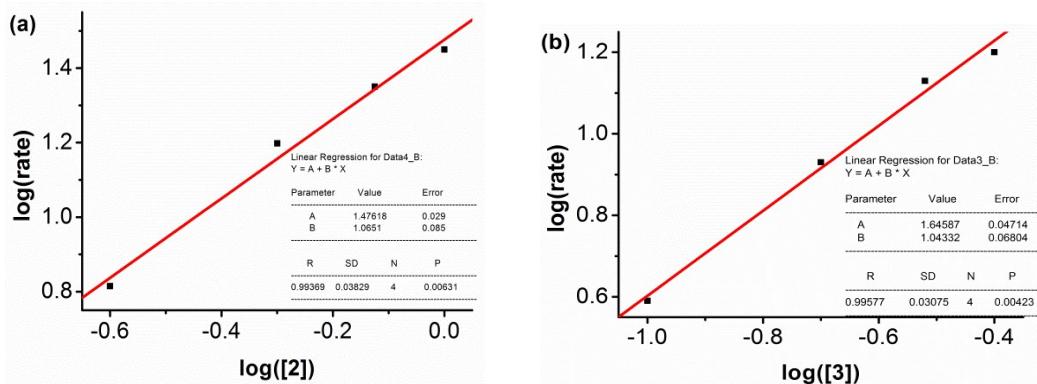


Figure S6. (a) The plot of log(rate) vs log([2]) and (b) the plot of log(rate) vs log([3]).