

Nonprecious iron nitride nanoparticles supported on nitrogen doped graphene nanosheets as efficient electrocatalyst of oxygen reduction reaction in fuel cells

Chi-Wen Tsai,^a Meng-Hsiu Tu,^a Chih-Jung Chen,^a Tai-Feng Hung,^a Ru-Shi Liu,^{*a}

Wei-Ren Liu,^b Man-Yin Lo,^b Yu-Min Peng,^b Lei Zhang,^c JiuJun Zhang,^c D. S. Shy,^d

and X. K. Xing^d

^a*Department of Chemistry, National Taiwan University, Taipei 106, Taiwan, Republic of China,*

^b*Material and Chemical Research Laboratories, and Industrial Technology Research Institute, Hsinchu 300, Taiwan, Republic of China*

^c*Institute for Fuel Cell Innovation, National Research Council of Canada, Vancouver, BC, Canada, and*

^d*Synergys ScienTech Corporation, Science Tech-based Industrial Park, Hsinchu 300, Republic of China*

Electronic Supplementary Information

*Author to whom correspondence should be addressed; electronic mail: rsliu@ntu.edu.tw

Tel: +886 02 33661169

Fax: +886 02 23636359

Figure S1/3

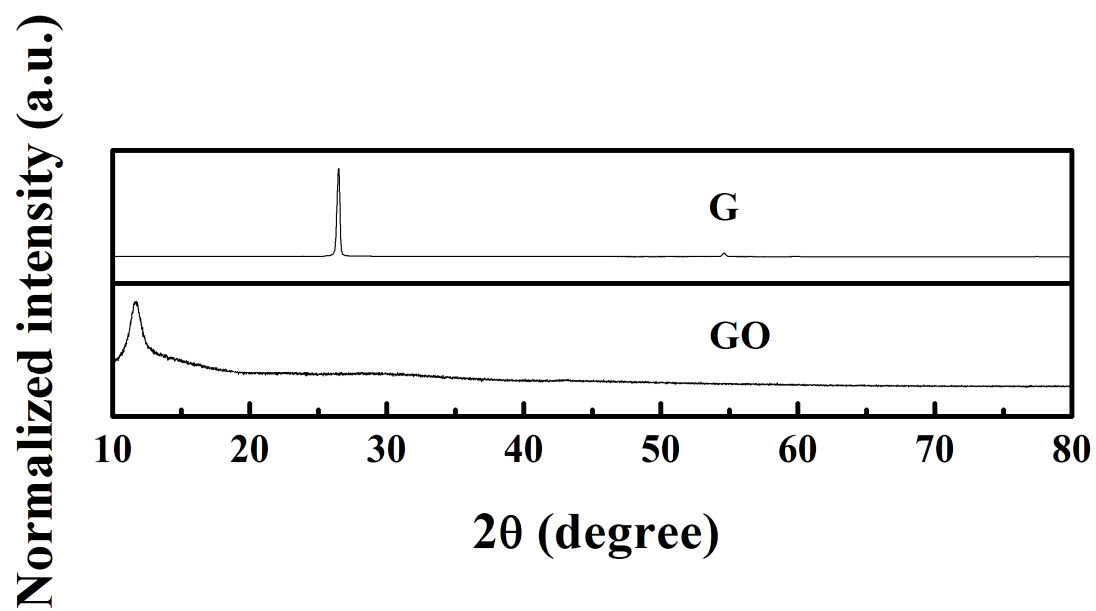


Figure S1. XRD characterization of G and GO for their transformations.

Figure S2/3

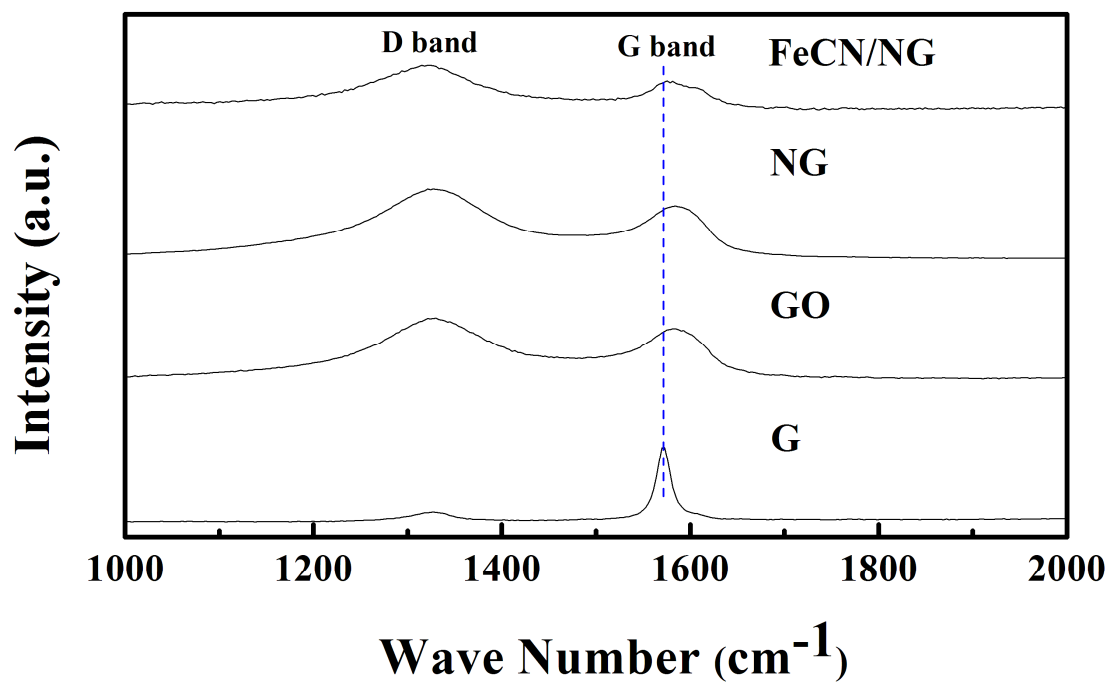


Figure S2. Raman spectra of graphene-based electrocatalysts.

Figure S3/3

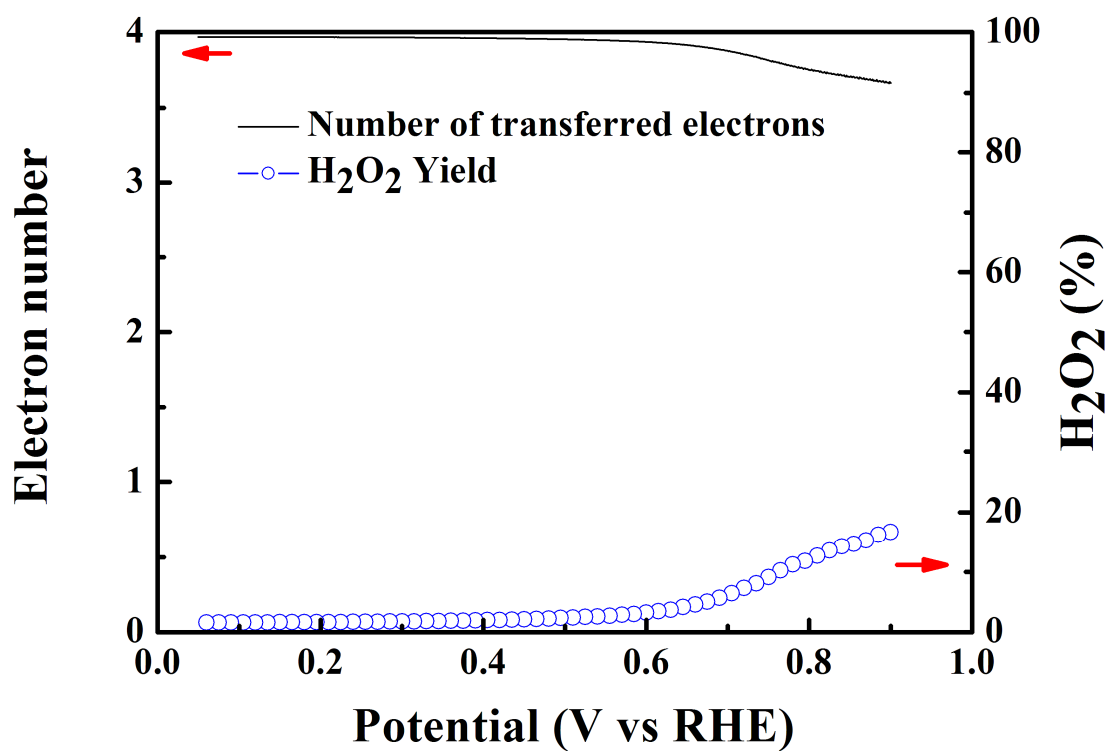


Figure S3. Percentage H₂O₂ and number of transferred electrons in RRDE test by using FeCN/NG electrocatalysts.