

## One step preparation of ‘ready to use’ Au@Pd nanoparticle modified surface using Deep eutectic solvents and a study of its electrocatalytic properties in methanol oxidation reaction.

Anu Renjith, Lakshminarayanan V.\*

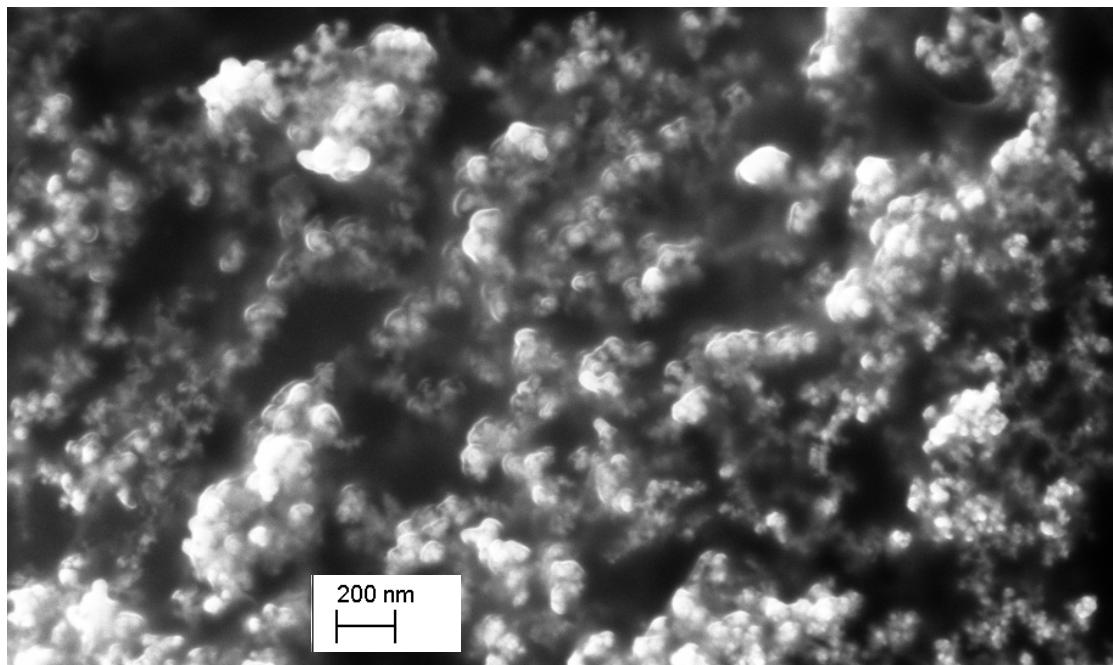


Fig.S1: SEM images of graphite rod modified with Au@Pd NPs

**Table S1:** Elemental composition of as prepared Au@Pd nanoparticles

Element	Weight%
C K	29
N K	12.59
O K	3.48
Cl K	7.33
Pd L	47.60
Totals	100.00

**Table S2:** Elemental composition of electrochemically pretreated Au@Pd nanoparticles

Element	Weight%
C K	60.81
O K	0.43
Cl K	1.18
Pd L	34.94
Au M	2.64

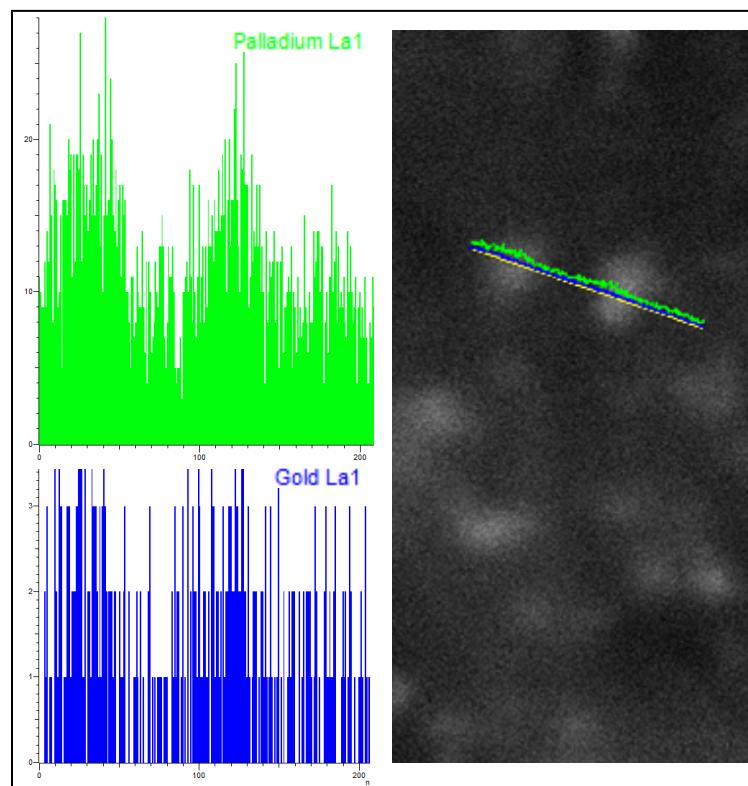


Fig.S2: EDAX line scan of electrochemically treated Au@Pd NPs on graphite

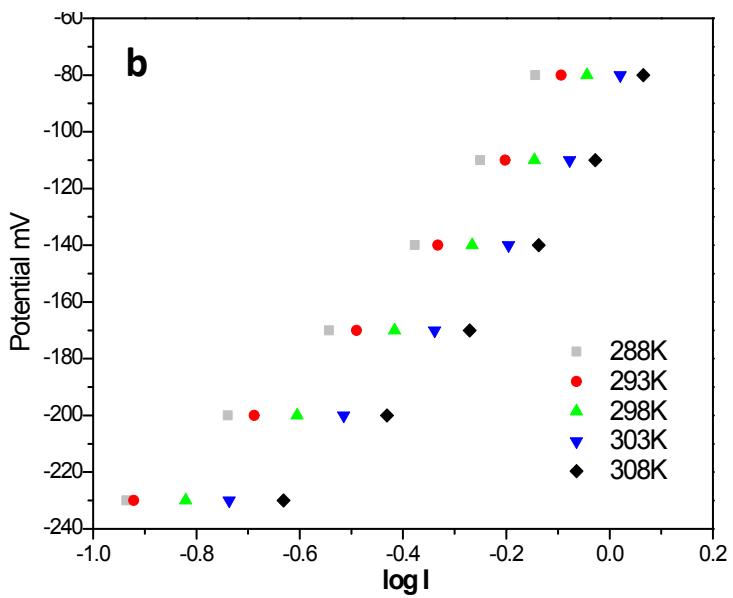
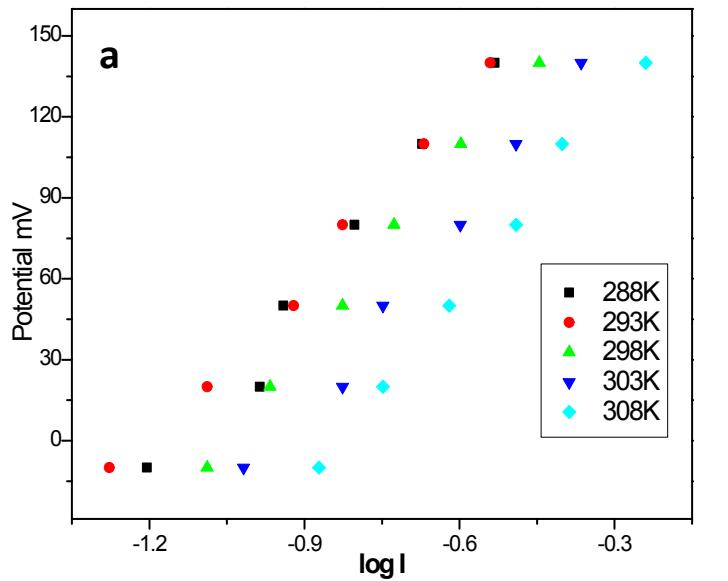


Fig.S3:Tafel plots of (a) Au NP (b)PdNP modified graphite rod in 2M MeOH / 0.5M NaOHVs Hg/HgO/1M NaOH at different temperature ranges

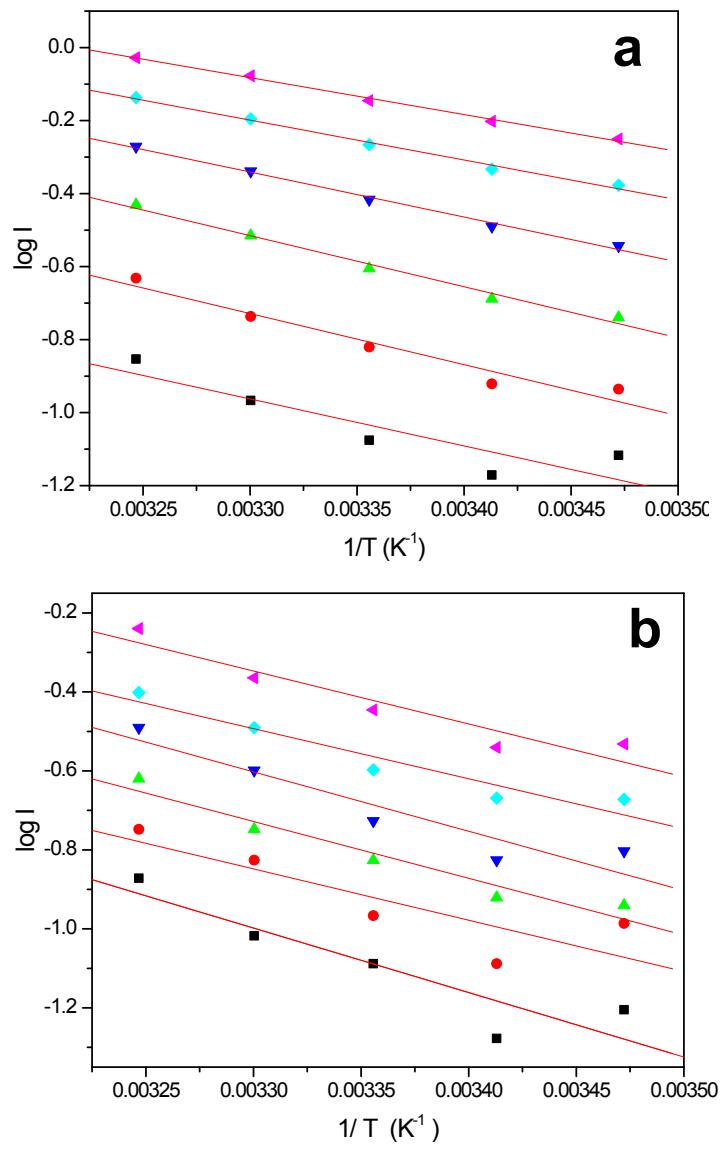


Fig.S4: Arrhenius plots for (a) Pd NP (b) Au NP modified graphite rod in 2M MeOH / 0.5M NaOH Vs Hg/HgO/1M NaOH at different potential ranges