Electronic Supplementary Material (ESI)

Electrochemical Performance of Nano-sized $LiFePO_4$ Embedded 3D-Cubic Ordered Mesoporous Carbon and Nitrogenous Carbon

Sourav Khan,[a] Rayappan Pavul Raj,[a] Talla Venkata Rama Mohan,[a] and Parasuraman Selvam*[a-d]

[a]*National Centre for Catalysis Research and Department of Chemistry, Indian Institute of Technology-Madras, Chennai 600 036, India*

[b]*School of Chemical Engineering and Analytical Science, The University of Manchester, Manchester M13 9PL, United Kingdom.*

[c]*Department of Chemical and Process Engineering, University of Surrey, Guildford, Surrey GU2 7XH, United Kingdom.*

[d]*Department of Chemistry, Faculty of Advanced Science and Technology, Kumamoto University, 2-39-1 Kurokami, Chuo-ku, Kumamoto 860-8555, Japan*

***Corresponding Author.**

Tel.: +91 -44-2257-4235/4200

E-mail: selvam@iitm.ac.in

This PDF file includes: ESI Figures S1 and S2

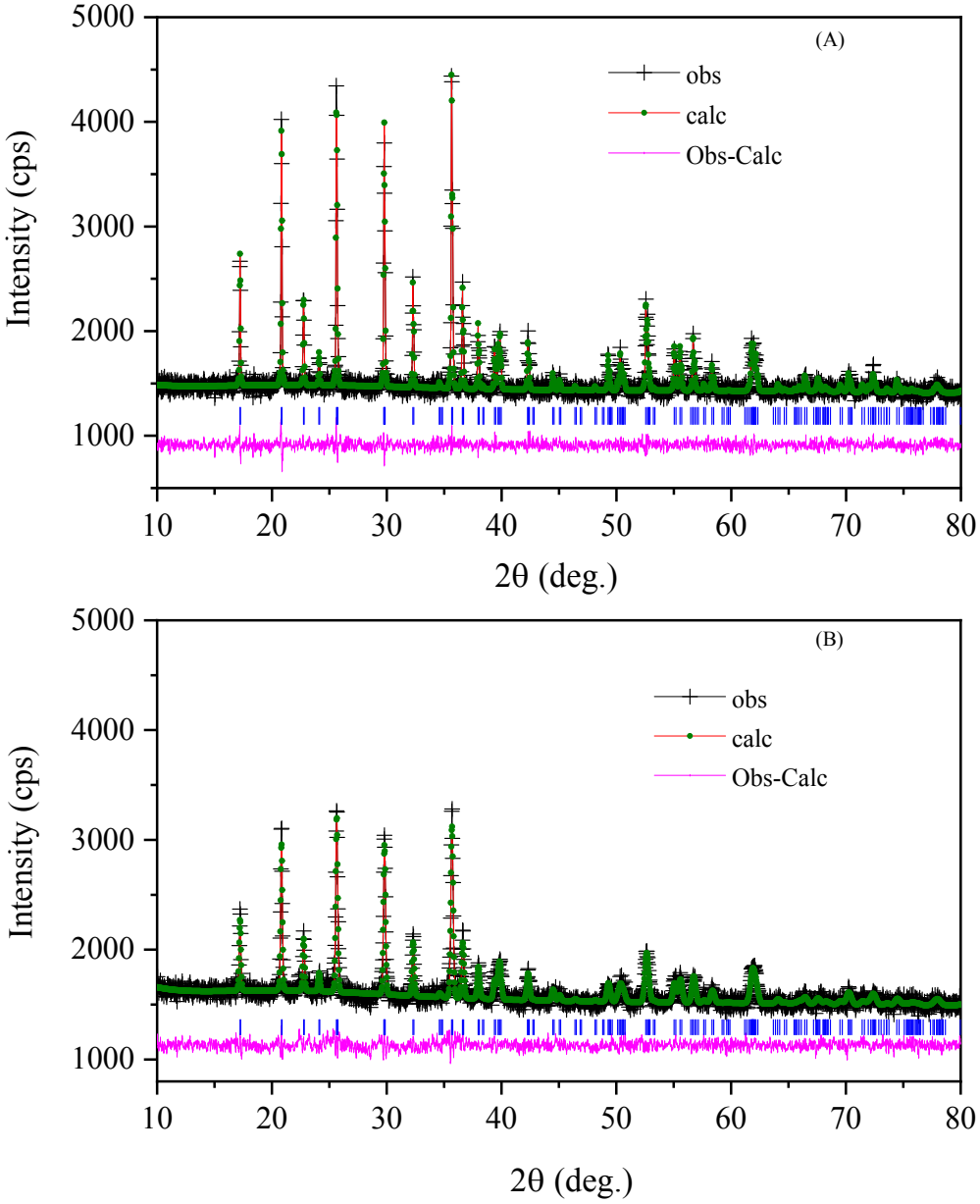

Figure S1. Rietveld refined XRD patterns of: (A) LFP/CSI-809 and (B) LFP/MNC-859.

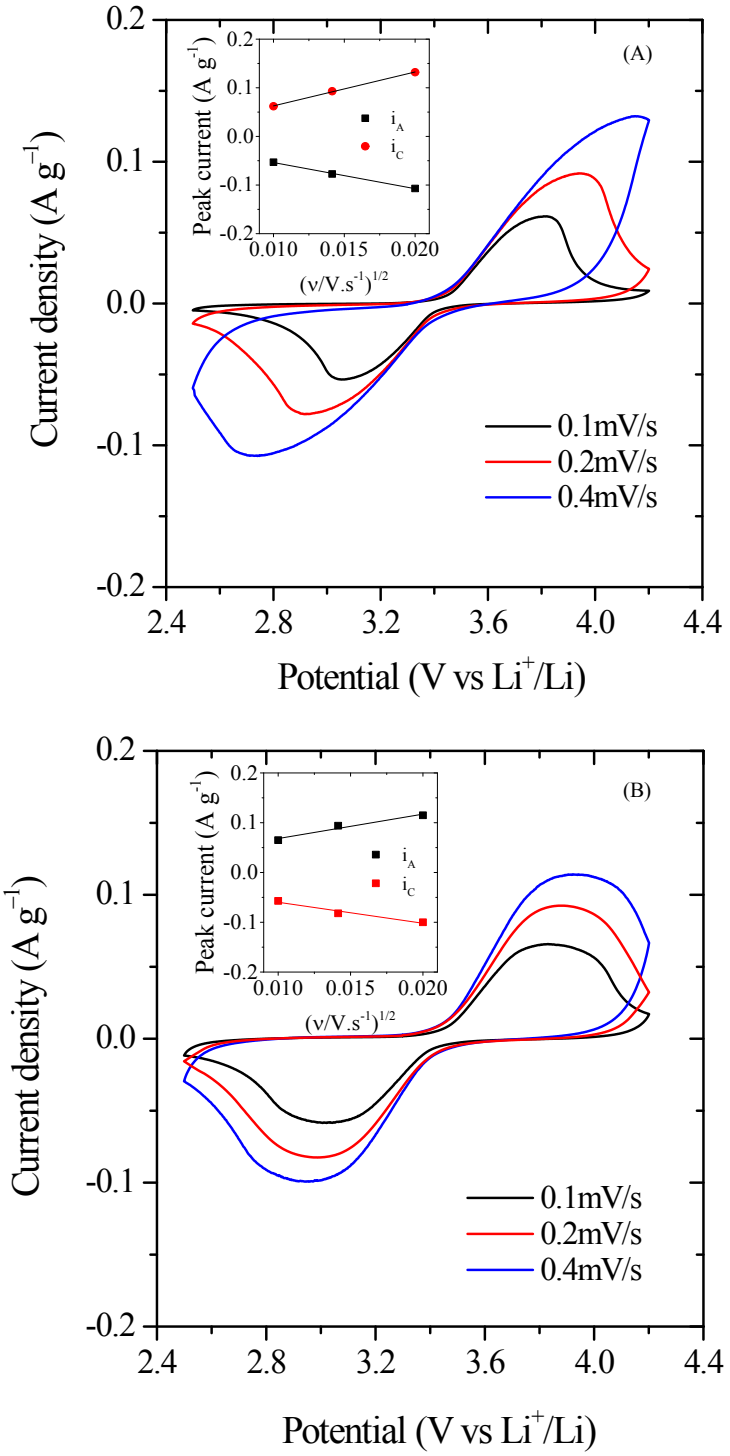

Figure S2. Cyclic Voltamograms of: A) LFP + CMK-8 and B) LFP + MNC-81 at different scan rates. Inset - Relationship between the peak currents and $\nu^{1/2}$ at various scan rates.

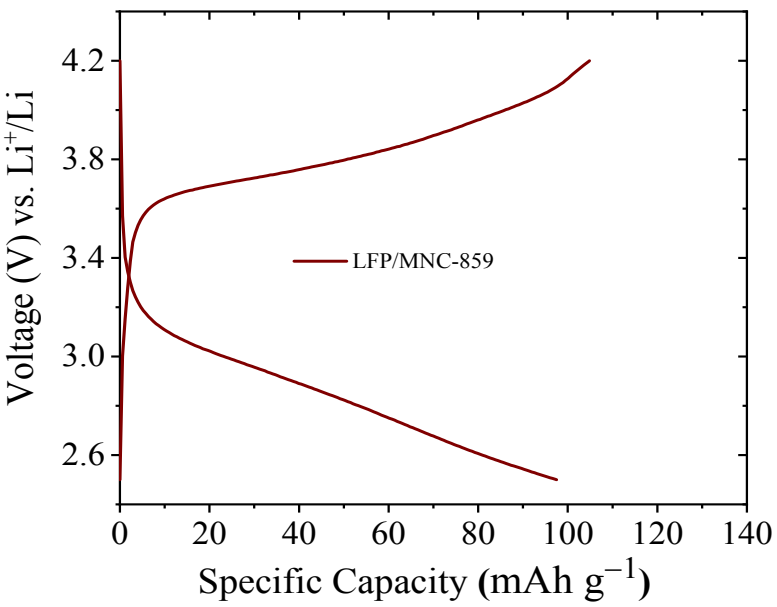

Figure S3. Galvanostatic charge-discharge profiles recorded at 0.1C rate for LFP/MNC-859 composite without addition of Super P carbon black during electrode fabrication.