

SUPPORTING INFORMATION

Title: Chemically synthesised Cu_3Se_2 film based solid state symmetric supercapacitor: effect of reaction bath temperature

Authors: *D. B. Malavekar¹, S. B. Kale^{1,2}, V. C. Lokhande³, U. M. Patil¹, J. H. Kim², C. D. Lokhande^{1*}*

¹Centre for Interdisciplinary Research, D. Y. Patil Education Society, Kolhapur, 416-006, India.

²Department of Material Science and Engineering, Chonnan National University, Gwangju – 500-757, South Korea.

³Department of Electronics Communication and Computer Engineering, Chonnan National University, Gwangju – 500-757, South Korea.

Corresponding author footnote*

Prof. C. D. Lokhande

Phone: +91 231 2601212

Email: l_chandrakant@yahoo.com

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1. Calculation of theoretical capacitance:

Molecular weight of Cu_3Se_2 : 348.558 g/mol

$$\text{Theoretical specific capacitance} = \frac{n \times F}{M \times V}$$

where n is number of electrons transferred, F is faradays constant, M is molecular weight and V is the potential.

$$\begin{aligned} \text{Theoretical specific capacitance of } \text{Cu}_3\text{Se}_2 &= \frac{2 \times 96485.33212}{348.558 \times 0.4} \\ &= 1384 \text{ F g}^{-1}. \end{aligned}$$

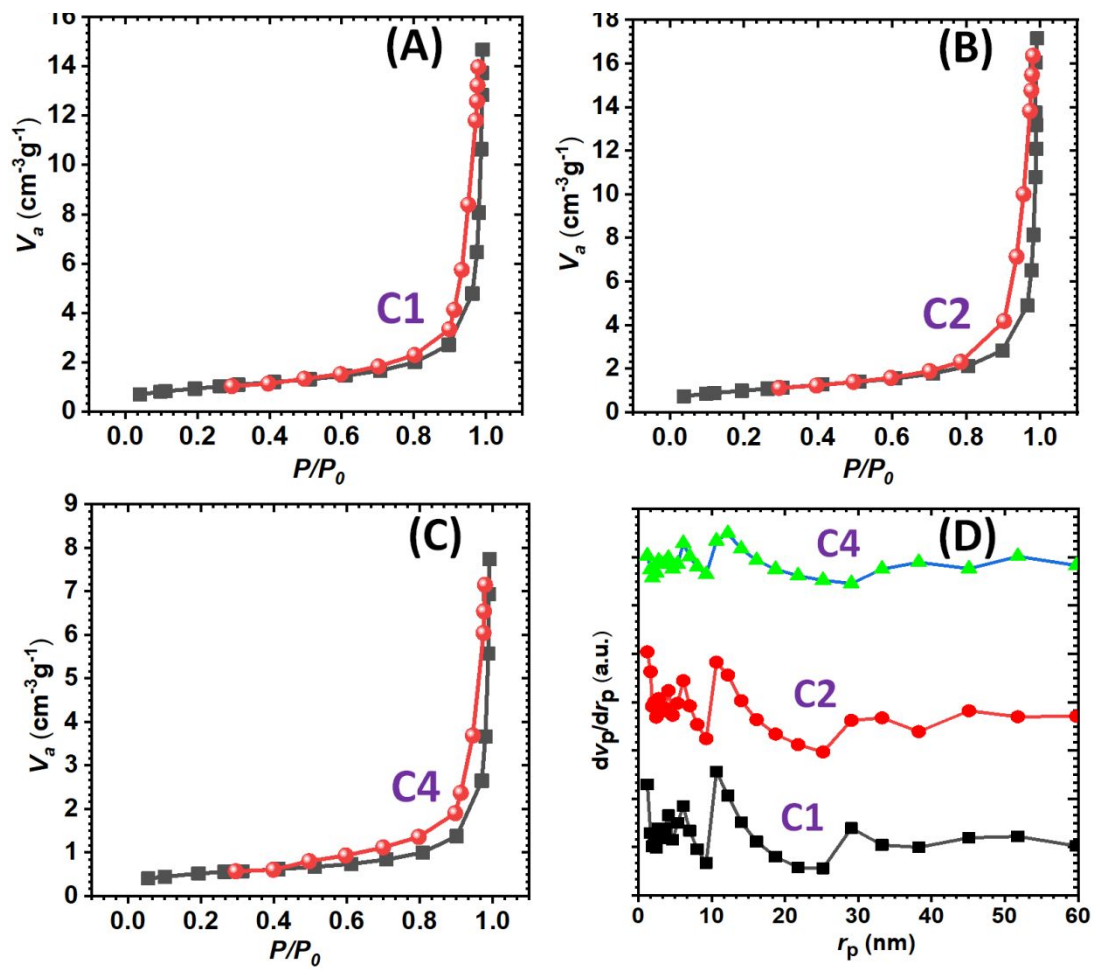


Figure S1: N₂ adsorption-desorption isotherms of A) C1, B) C2, C) C4, and D) Pore size distribution of C1, C2, and C4 electrodes.

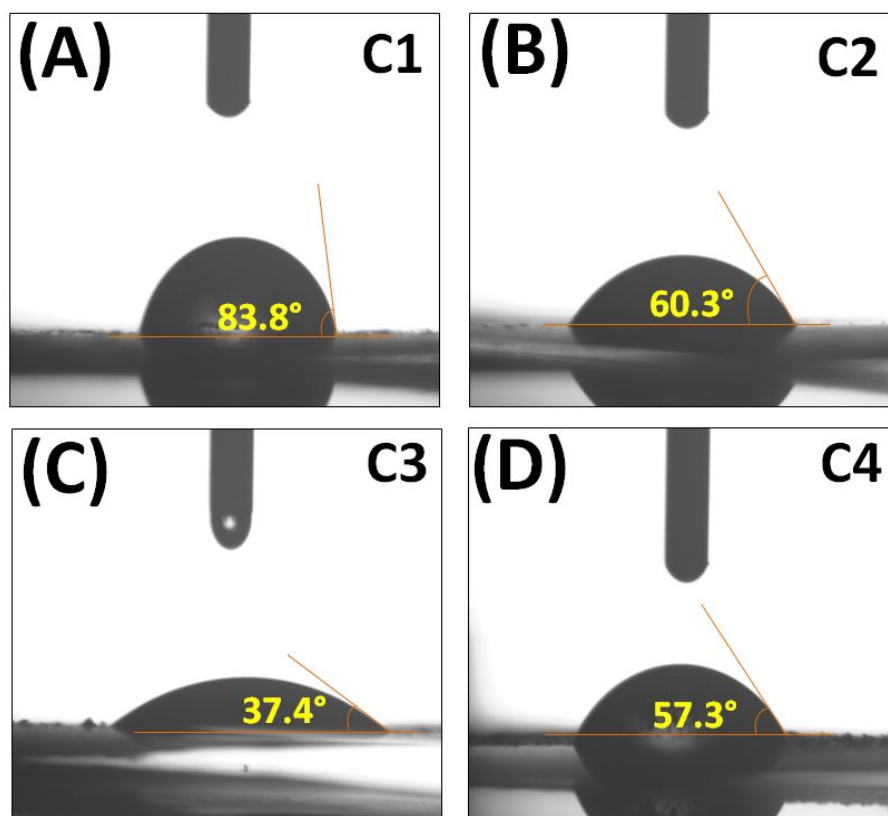


Figure S2: The contact angles of A) C1, B) C2, C) C3, and D) C4 films.

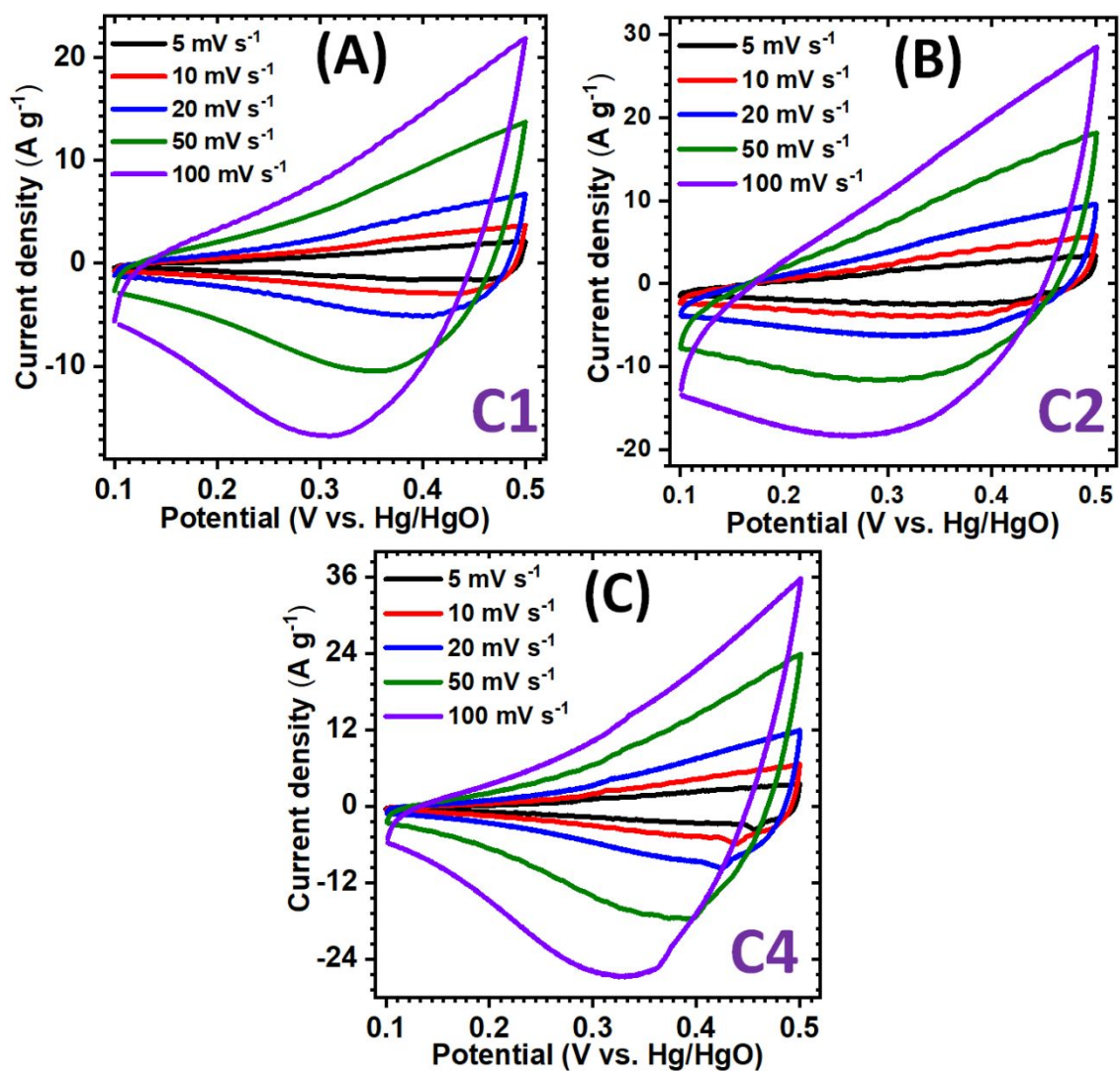


Figure S3: The CV curves of A) C1, B) C2, and C) C4 electrodes at various scan rates.

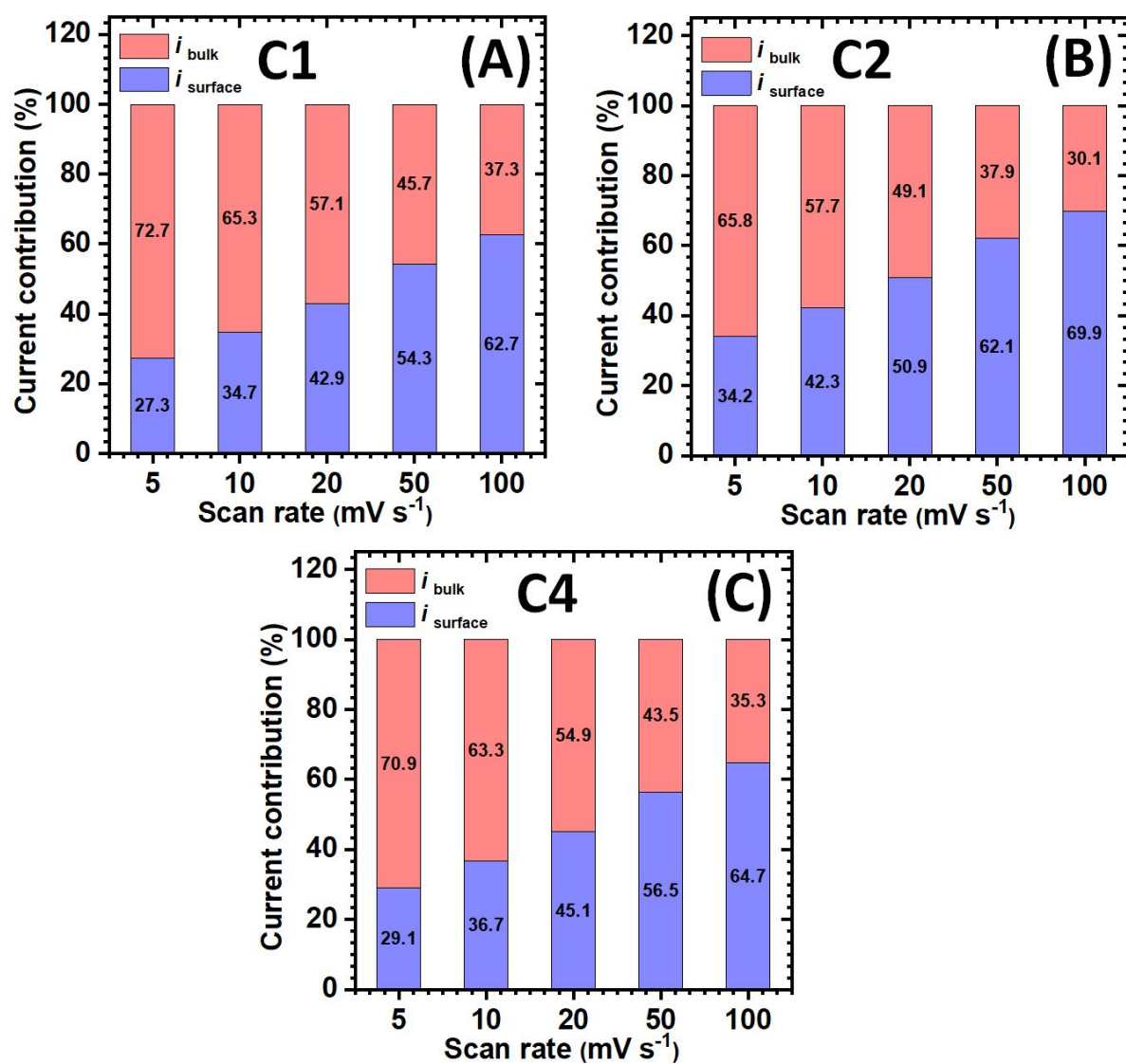


Figure S4: The contribution of capacitive and diffusion controlled currents of A) C1, B) C2, and C) C4 electrodes.

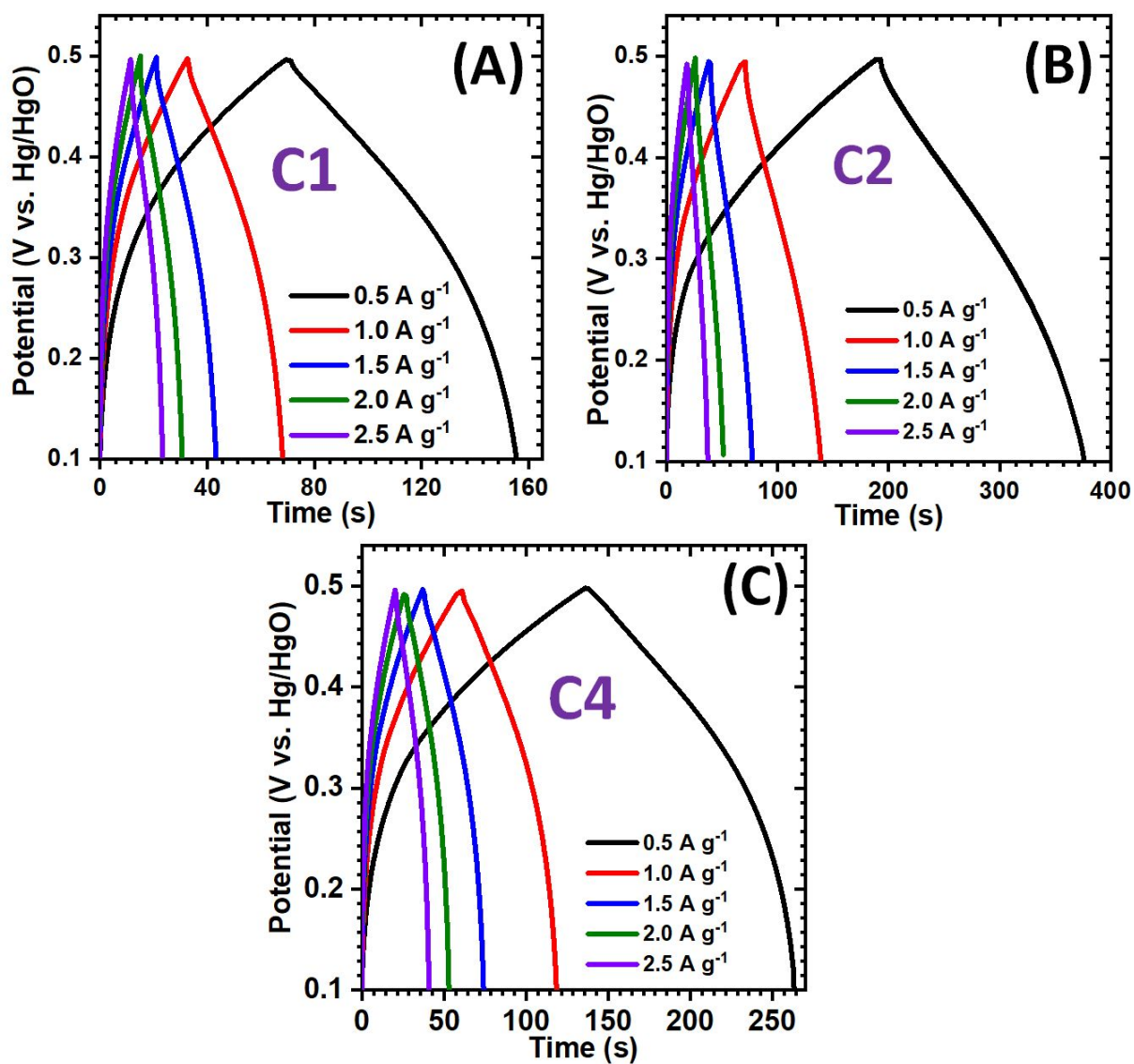


Figure S5: The GCD plots of A) C1, B) C2, and C) C4 electrodes at various current densities.

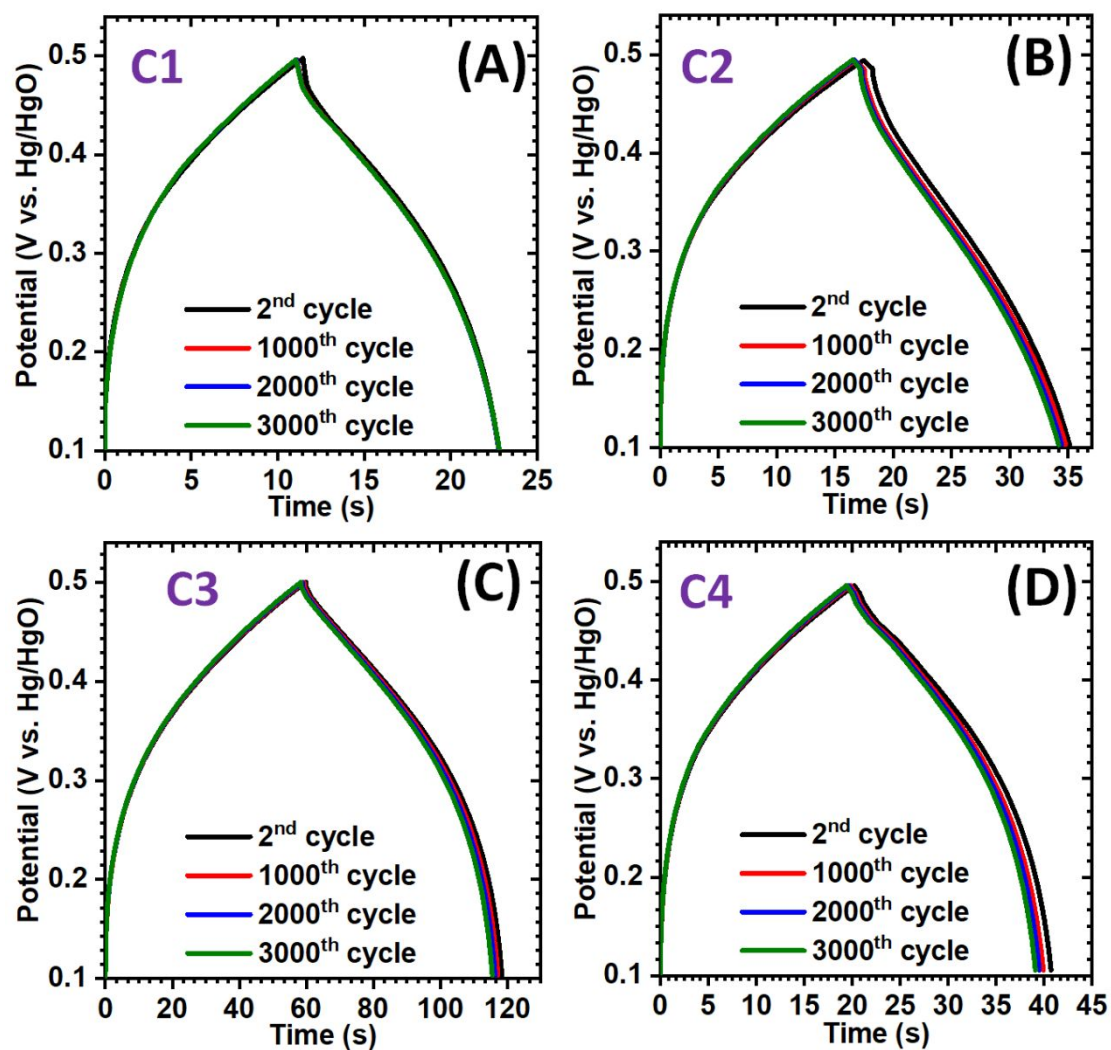


Figure S6: The GCD curves at different cycles for A) C1, B) C2, C) C3, and D) C4 electrodes.