

## Supporting Information

# Parametric Study of Planetary Milling to Produce Cu-CuO Powders for Pore Formation by Oxide Reduction

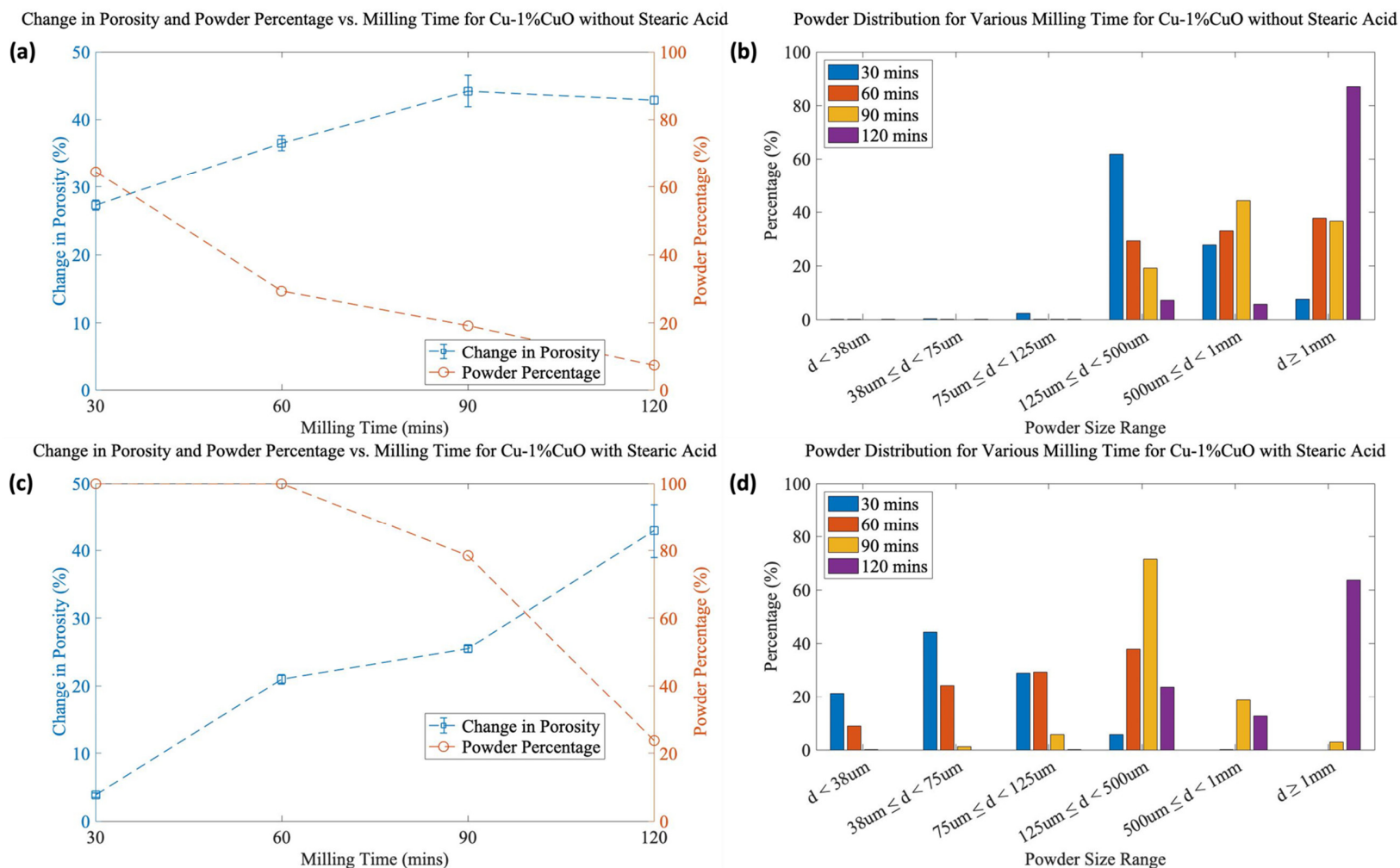
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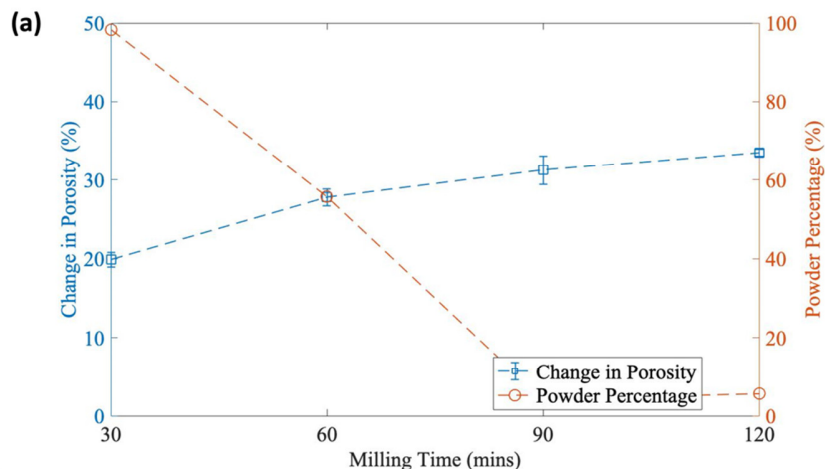
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Additional data for Cu-1%CuO and Cu-3%CuO are presented here. The powder size, porosity, and morphology are presented in the following figures.

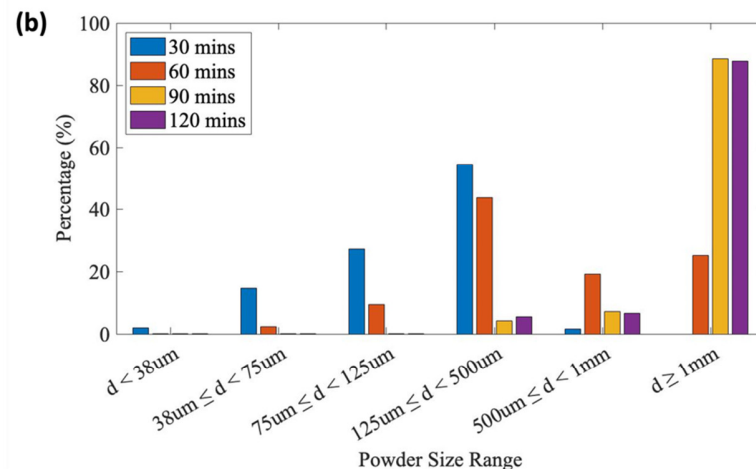


**Figure S1.** (a) Change in porosity, powder percentage and (b) powder size distribution vs. milling time for Cu-1%CuO without stearic acid, and (c) change in porosity, powder percentage and (d) powder size distribution with stearic acid.

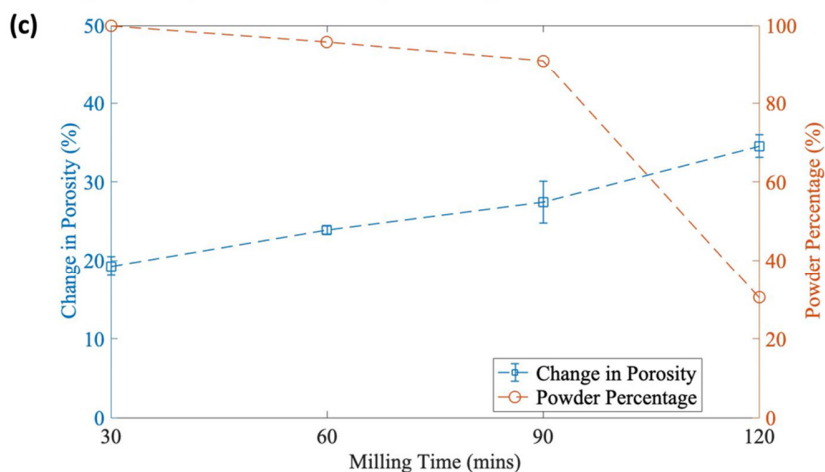
Change in Porosity and Powder Percentage vs. Milling Time for Cu-3%CuO without Stearic Acid



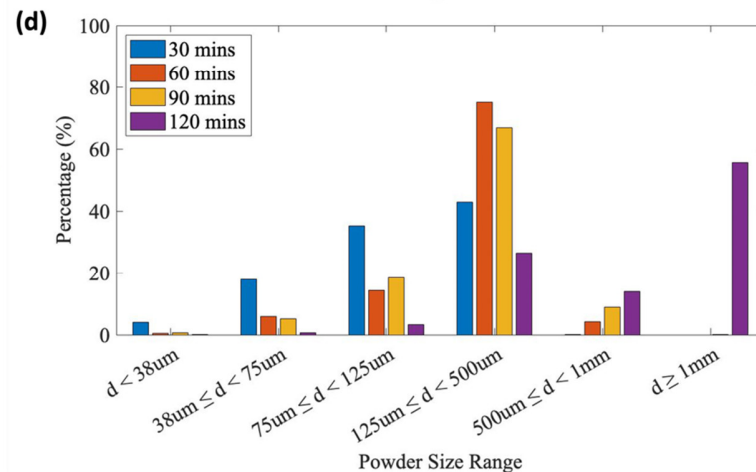
Powder Distribution for Various Milling Time for Cu-3%CuO without Stearic Acid



Change in Porosity and Powder Percentage vs. Milling Time for Cu-3%CuO with Stearic Acid

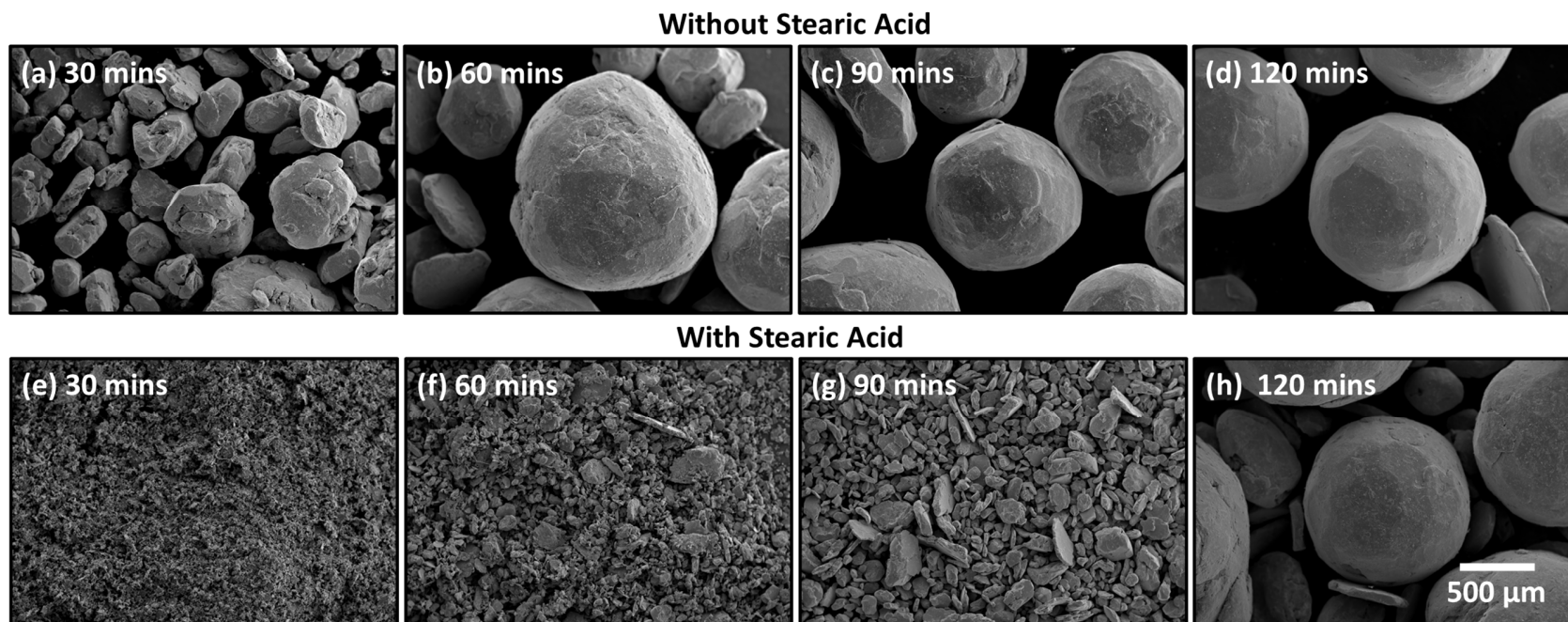


Powder Distribution for Various Milling Time for Cu-3%CuO with Stearic Acid

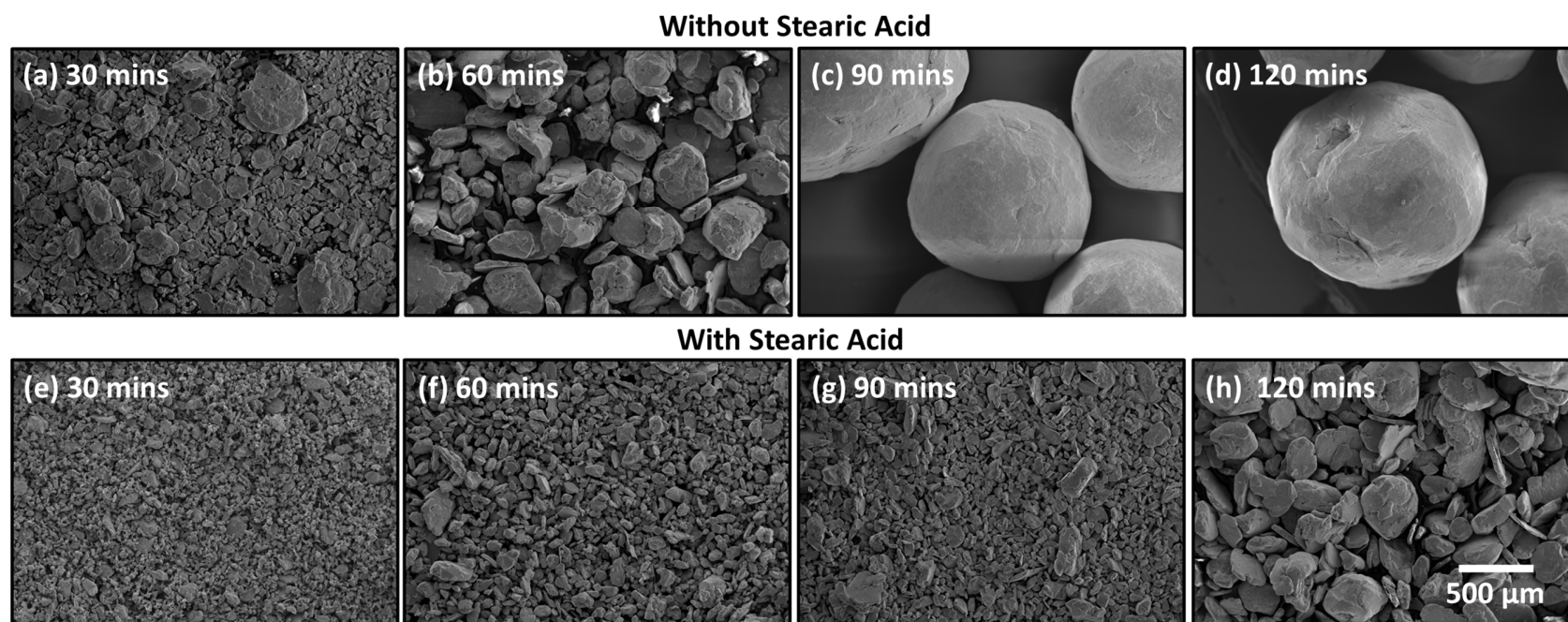


**Figure S2.** (a) Change in porosity, powder percentage and (b) powder size distribution vs. milling time for Cu-3%CuO without stearic acid, and (c) change in porosity, powder percentage and (d) powder size distribution with stearic acid.

### Powder Morphology for Various Milling Time and Various Compositions



**Figure S3.** Scanning electron microscope (SEM) imaging of Cu-1%CuO without stearic acid milled for (a) 30 min, (b) 60 min, (c) 90 mins, and (d) 120 min and with stearic acid milled for (e) 30 min, (f) 60 min, (g) 90 min, and (h) 120 min.



**Figure S4.** Scanning electron microscope (SEM) imaging of Cu-3%CuO without stearic acid milled for (a) 30 min, (b) 60 min, (c) 90 min, and (d) 120 min and with stearic acid milled for (e) 30 min, (f) 60 min, (g) 90 min, and (h) 120 min.