

Growth of KCl Whisker on Patterned Porous Coating

Lorraine Francis (PI) & Heng Zhang

Chemical Engineering & Materials Science, University of Minnesota

NNIN Facilities utilized: Characterization Facility & Nanofabrication Center

RESEARCH GOAL

- ◆ Characterize and control of growth of KCl whiskers on porous coating

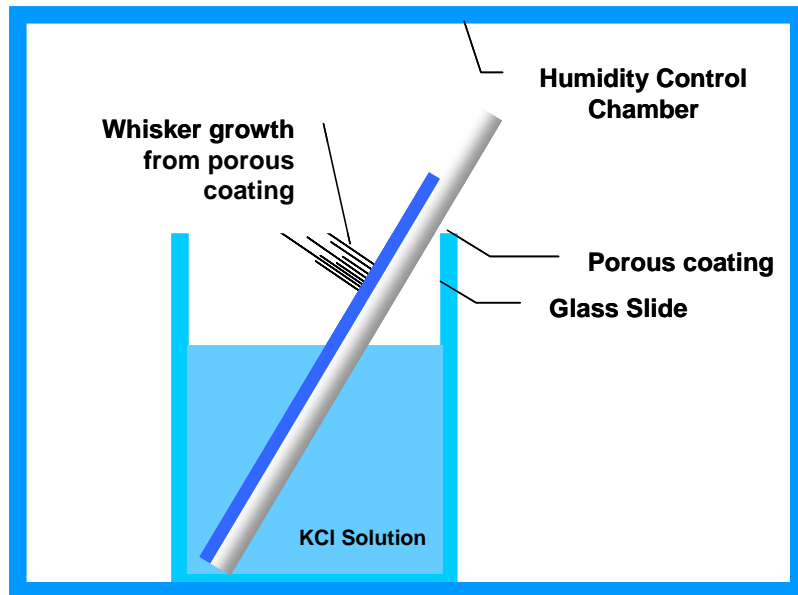


Fig.1. Schematic drawing of experimental setup.

RESULTS

- ◆ Morphology of whiskers is controlled by relative humidity, solution concentration and porous coating.
- ◆ Liquid is pulled into coating by capillarity and whisker grows from base.

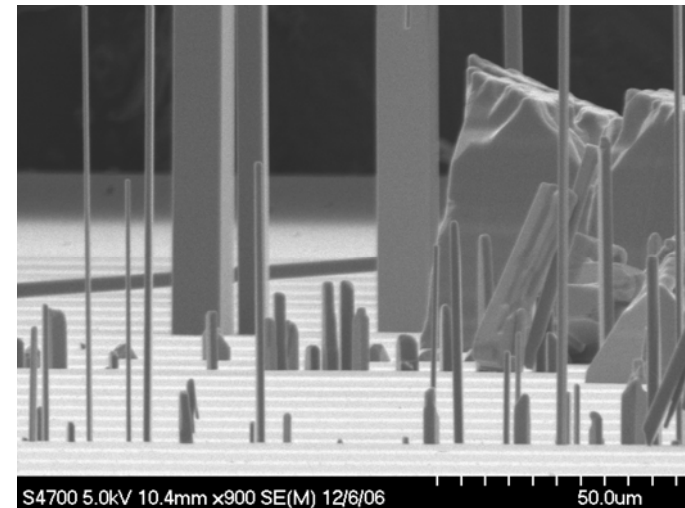


Fig.2. SEM of KCl Whisker grown on Patterned porous coating.